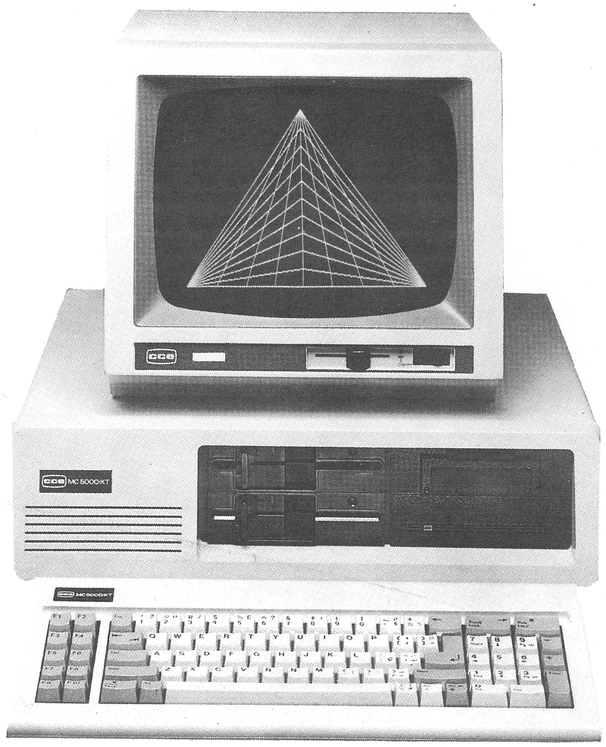
CÓD. 247

ESQUEMAS ELÉTRICOS

LINHA COMPLETA DE INFORMÁTICA







cce

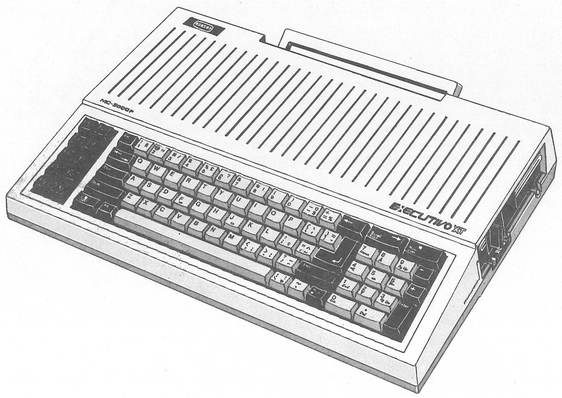
INFORMÁTICA

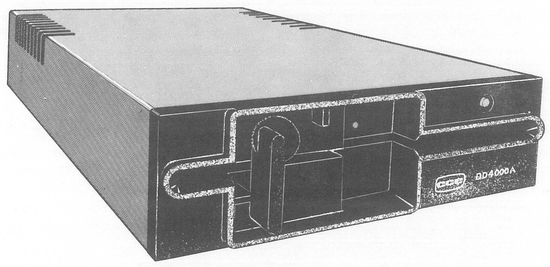
eltec®

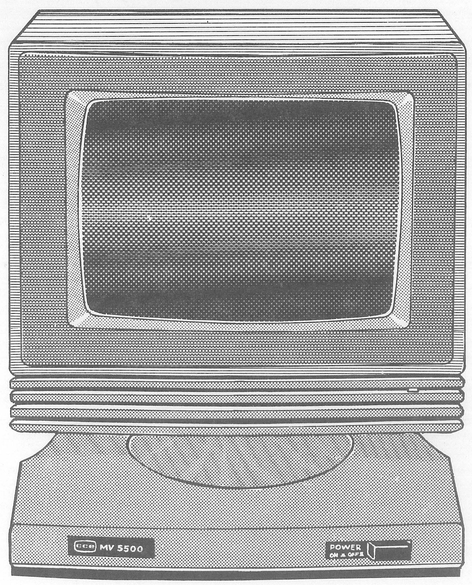

COLOR COMPUTER
MC-1000
SOUND

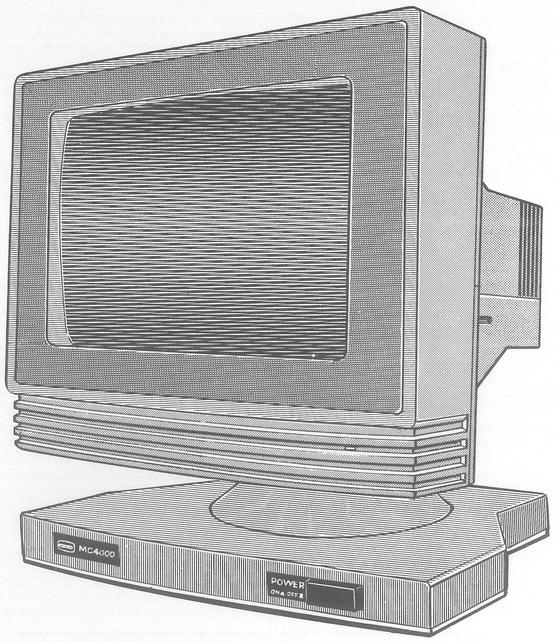

cce
MV-12

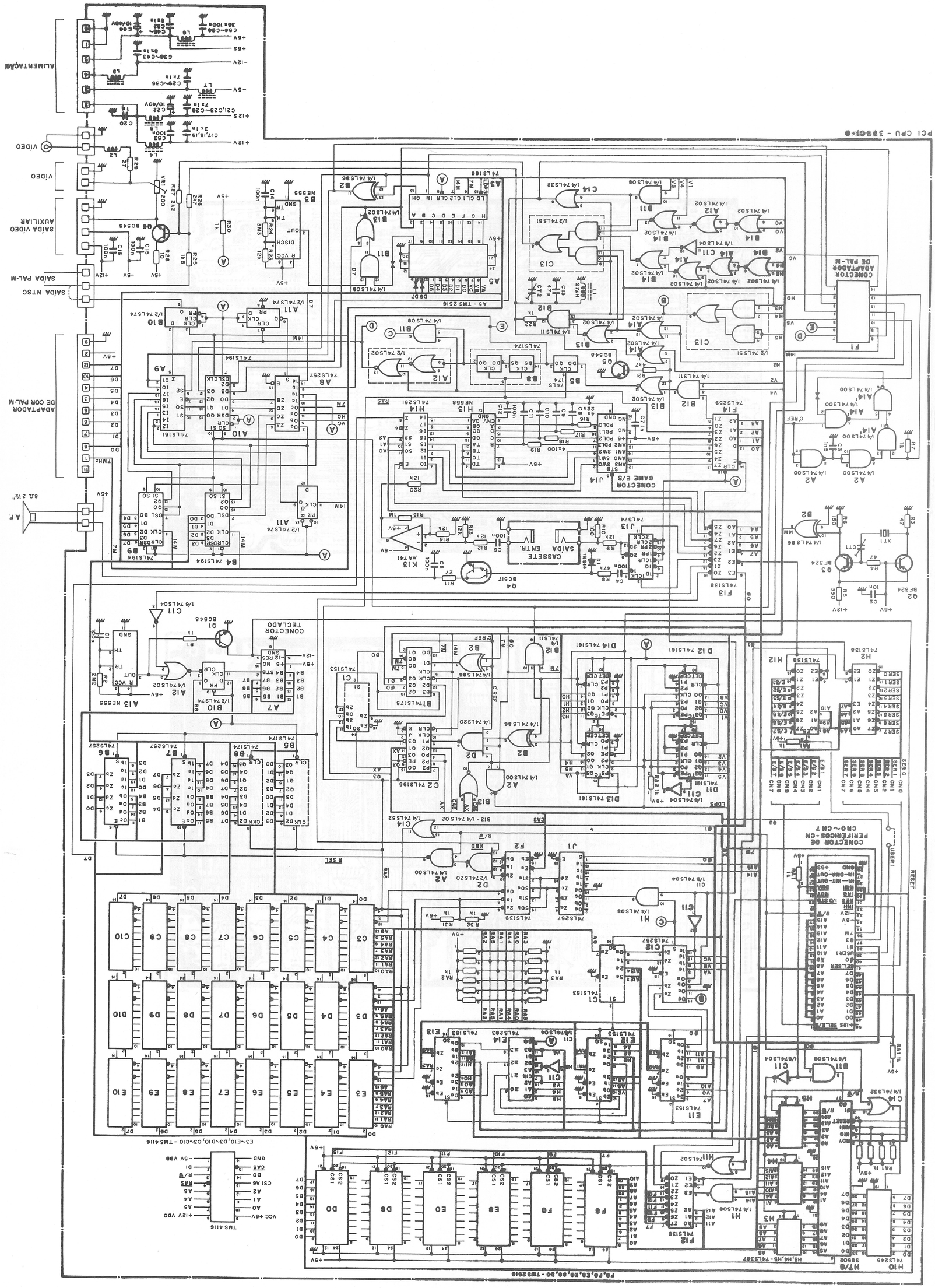

cce
COLOR COMPUTER
RESET
RETURN
SHIFT
RUBOUT
SPACE
SOUND
MC1000


EXECUTIVE

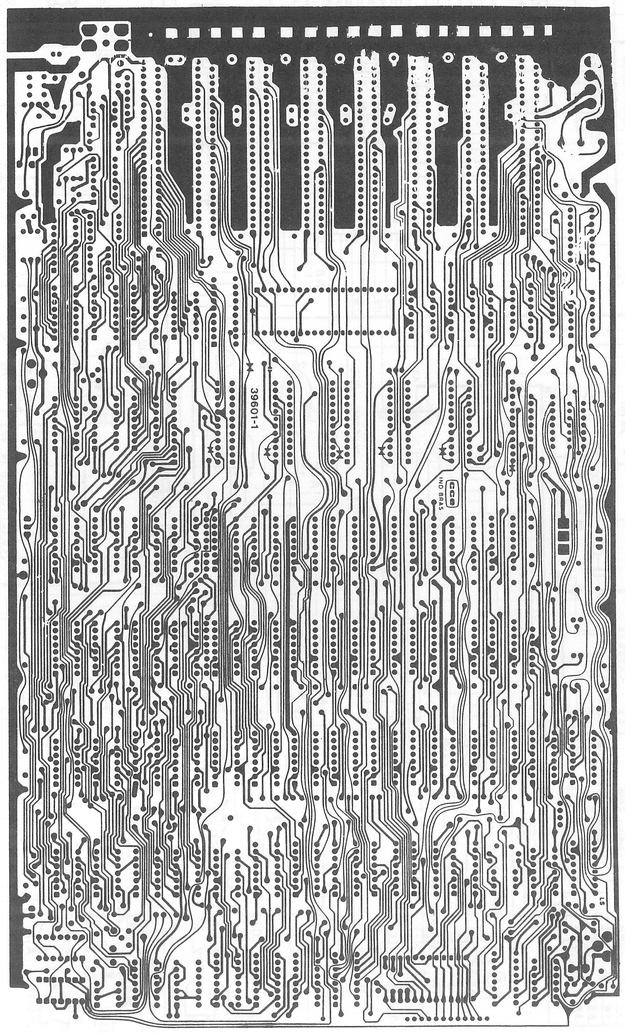

DD4000A

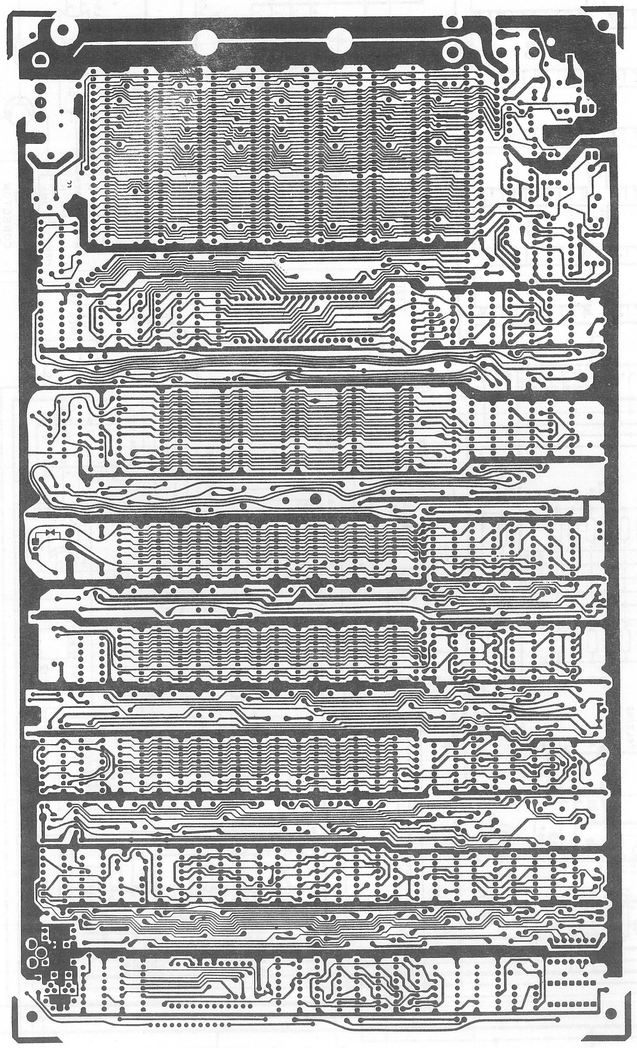

MV 5500
POWER
ON & OFF

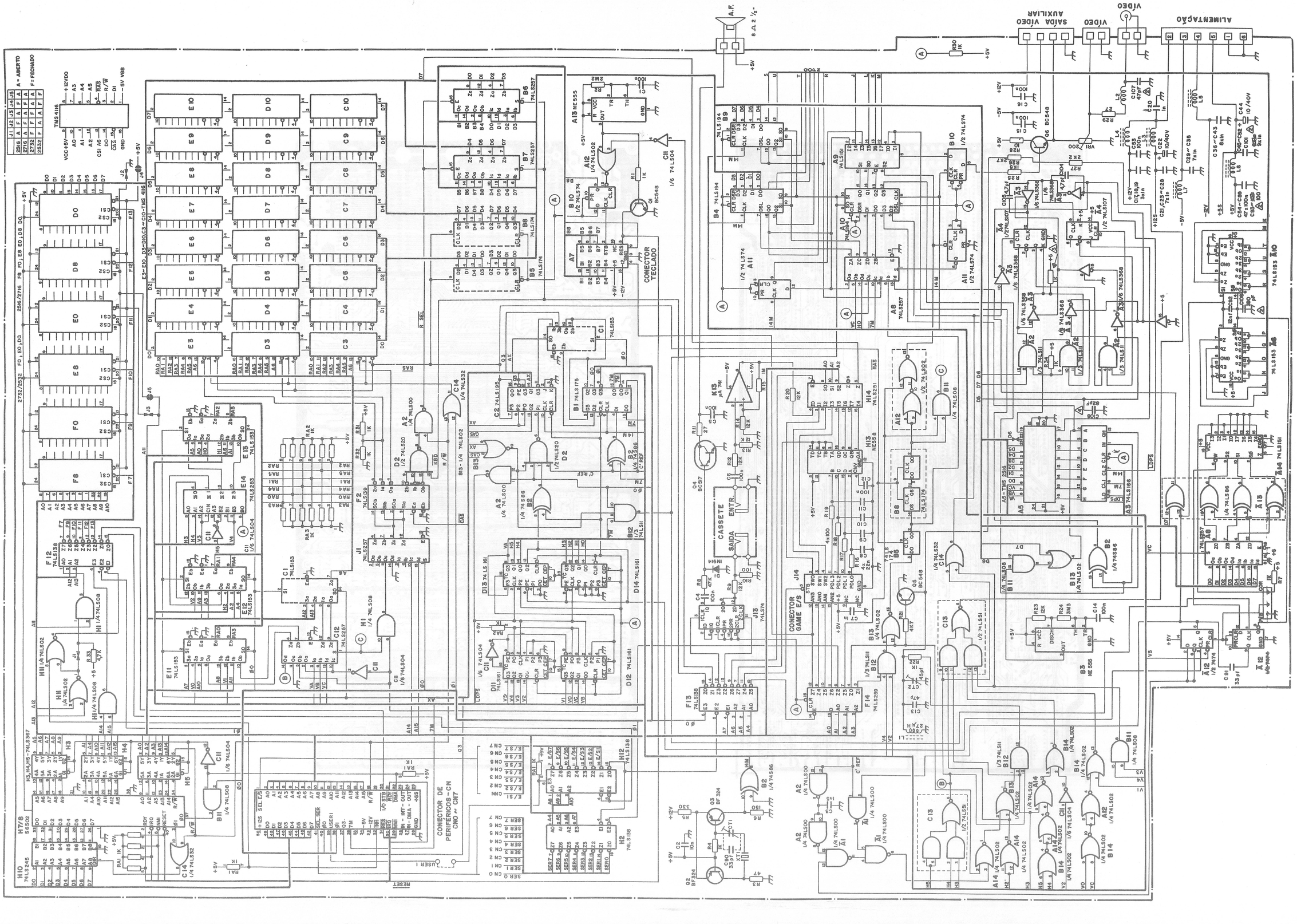

MC4000
POWER
ON & OFF

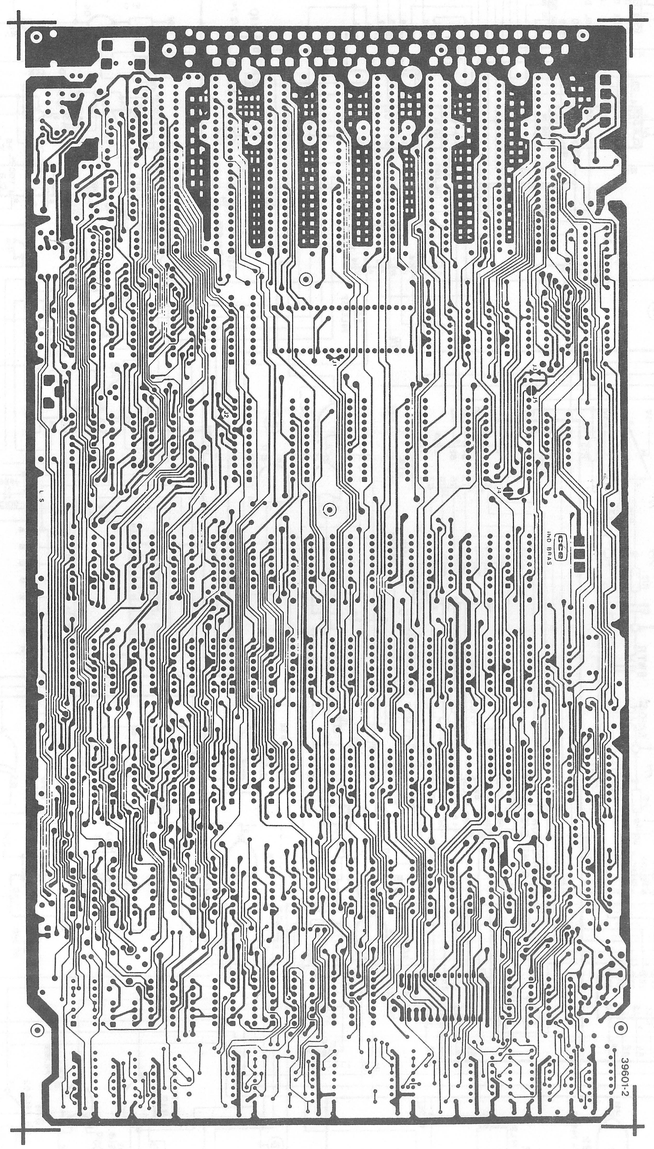

PCI CPU - 398804-6
ALIMENTAÇÃO
VÍDEO
SAÍDA VÍDEO AUXILIAR
SAÍDA PAL-M
SAÍDA NTSC
ADAPTADOR DE COR PAL-M
CONECTOR ADAPTADOR DE PAL-M
CONECTOR DE PERIFÉRICOS -CN CN0 ~ CN7
CONECTOR TECLADO
CONECTOR GAME E/S
CASSETE ENTR.
SAÍDA
A.F.
RESET
TMS 4116
E3~E10, D3~D10, C3~C10 - TMS 4116
F0, F6, E0, E6, D0, D6 - TMS 2516
A5 - TMS 2516

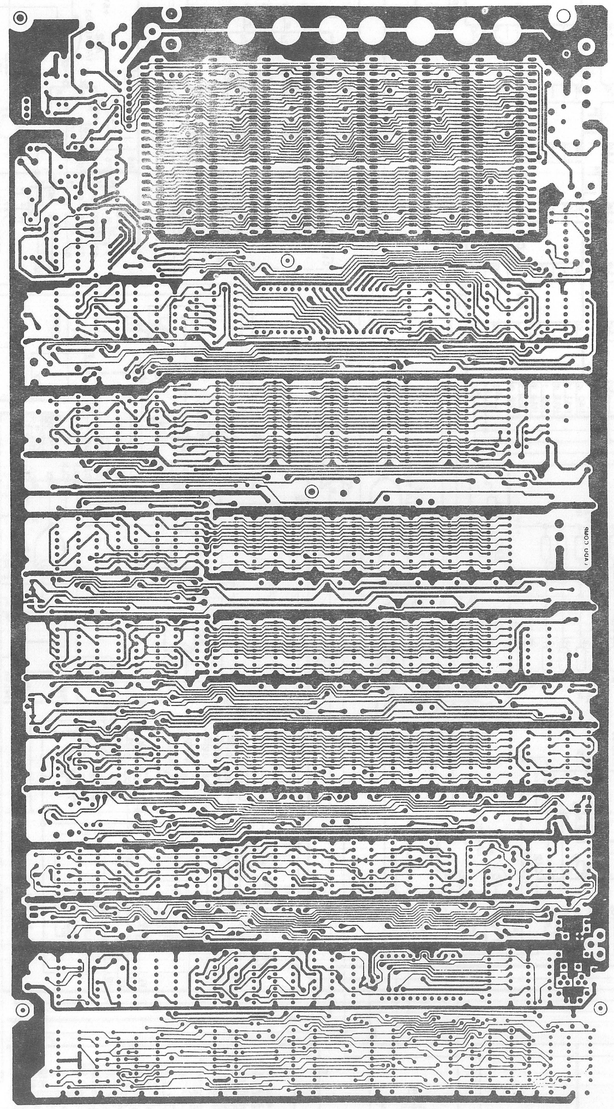
- 4000 (antigo)

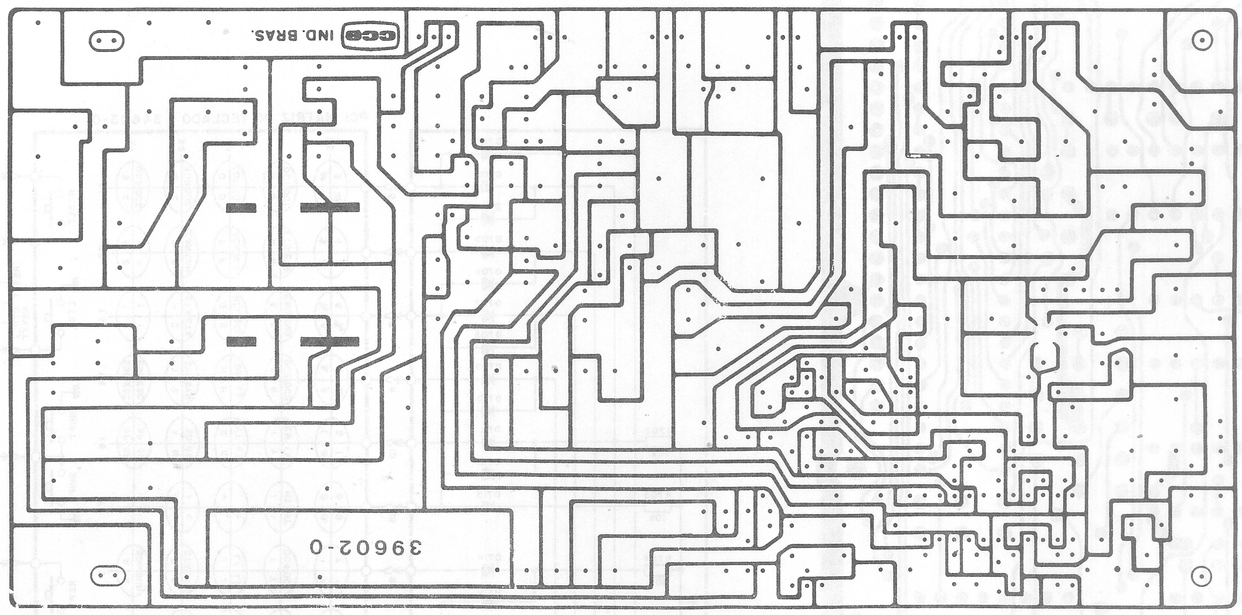


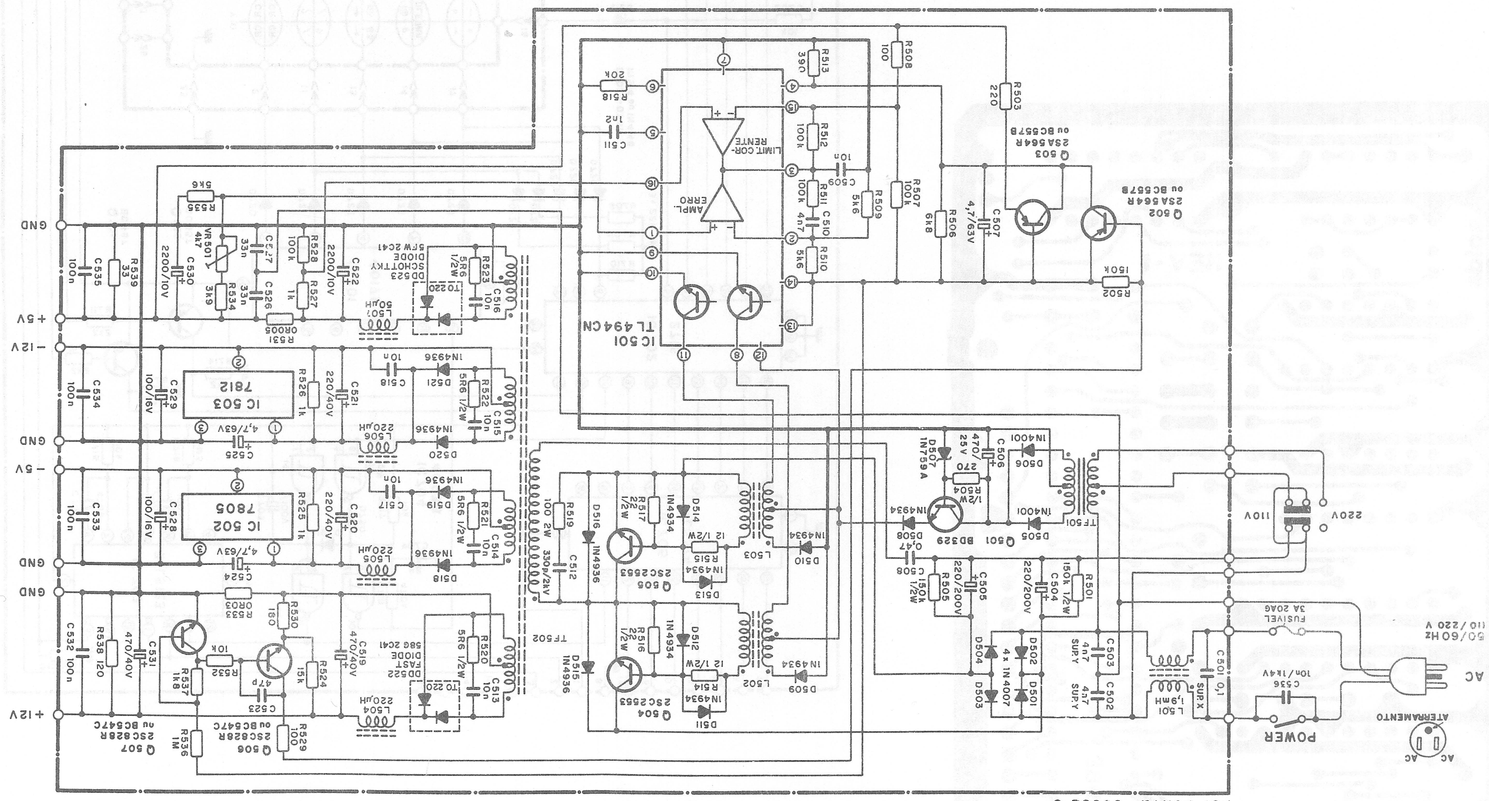



ALIMENTAÇÃO
SAÍDA VÍDEO AUXILIAR
VÍDEO
VÍDEO
A.F.
8 Ω 2 ½"
CONECTOR TECLADO
CONECTOR DE PERIFÉRICOS - CN1 ~ CN7
CONECTOR GAME E/S
CASSETE
ENTR.
SAÍDA
2732/2532
2316/2716
TMS4116
74LS245
SS502
74LS367
74LS138
74LS153
74LS157
74LS158
74LS183
74LS251
74LS259
74LS374
74LS174
74LS175
74LS194
74LS181
74LS161
74LS195
74LS257
74LS373
74LS86
74LS32
74LS00
74LS02
74LS04
74LS08
74LS11
74LS20
74LS32
74LS38
74LS74
74LS86
74LS107
74LS132
74LS139
74LS157
74LS158
74LS163
74LS166
74LS183
74LS251
74LS259
74LS366
74LS367
74LS368
74LS373
74LS374
74LS393
NE555
NE556
74174
BC548
BC397
BF324
2N3904
2N3906
TIP32A
TIP42A
MC1488
MC1489
AS-TMS 2516
LD CLI CLA CLR IN CN
LDPS
LDPS
RESET
R/W
R. SEL.
CASSETE ENTR.
SAÍDA
CONECTOR GAME E/S
CONECTOR DE PERIFÉRICOS - CN1 ~ CN7
CONECTOR TECLADO
A.F.
VÍDEO
SAÍDA VÍDEO AUXILIAR
ALIMENTAÇÃO

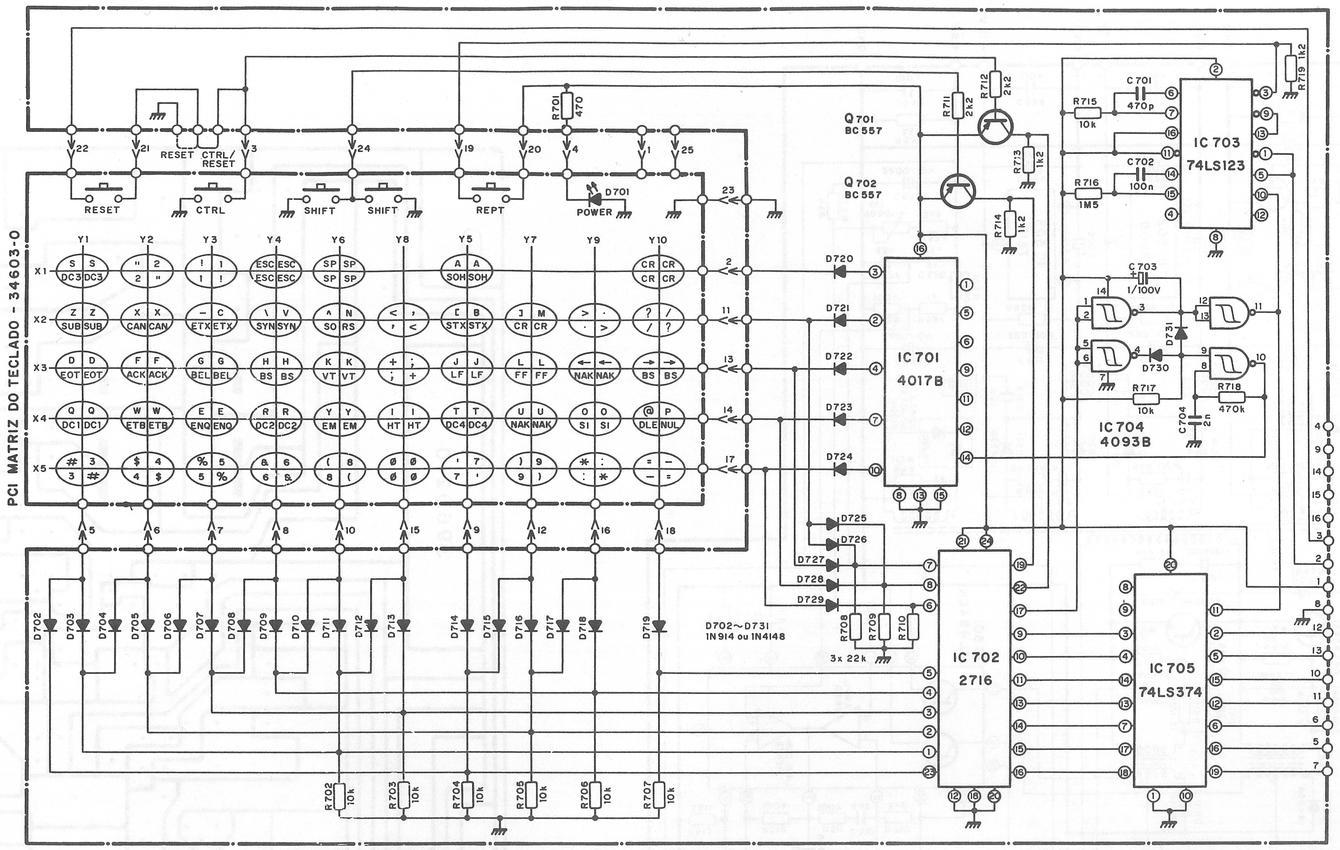

3960-2

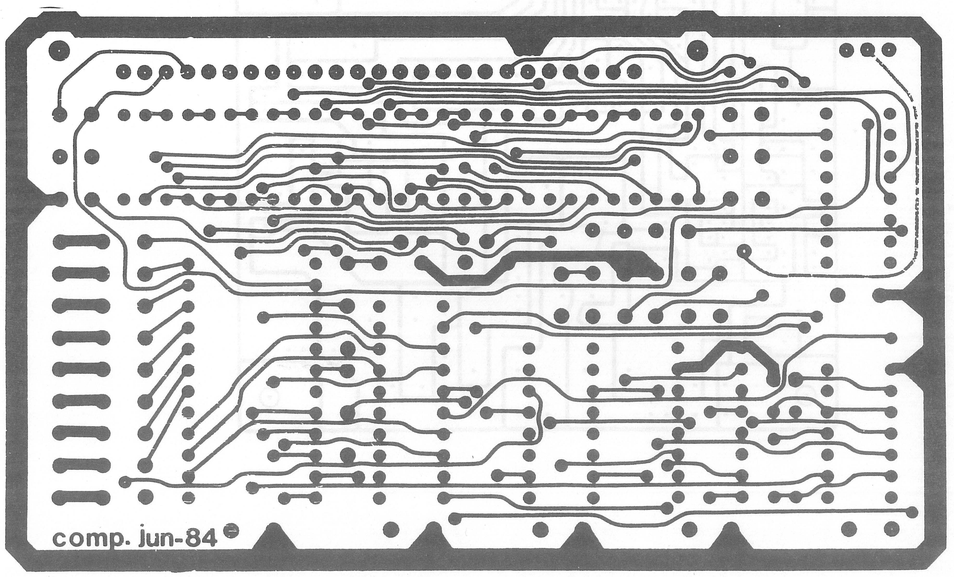


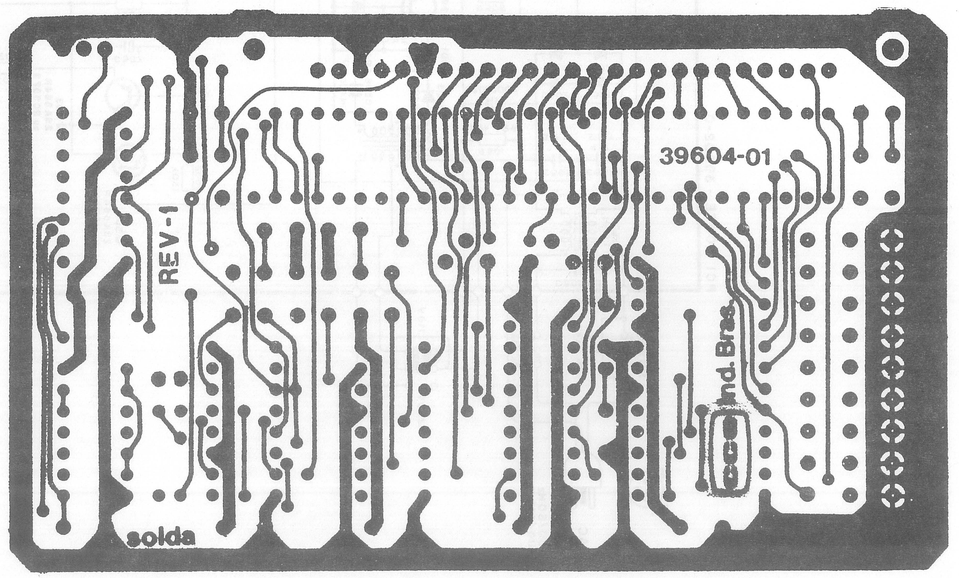

IND. BRAS.
39602-0

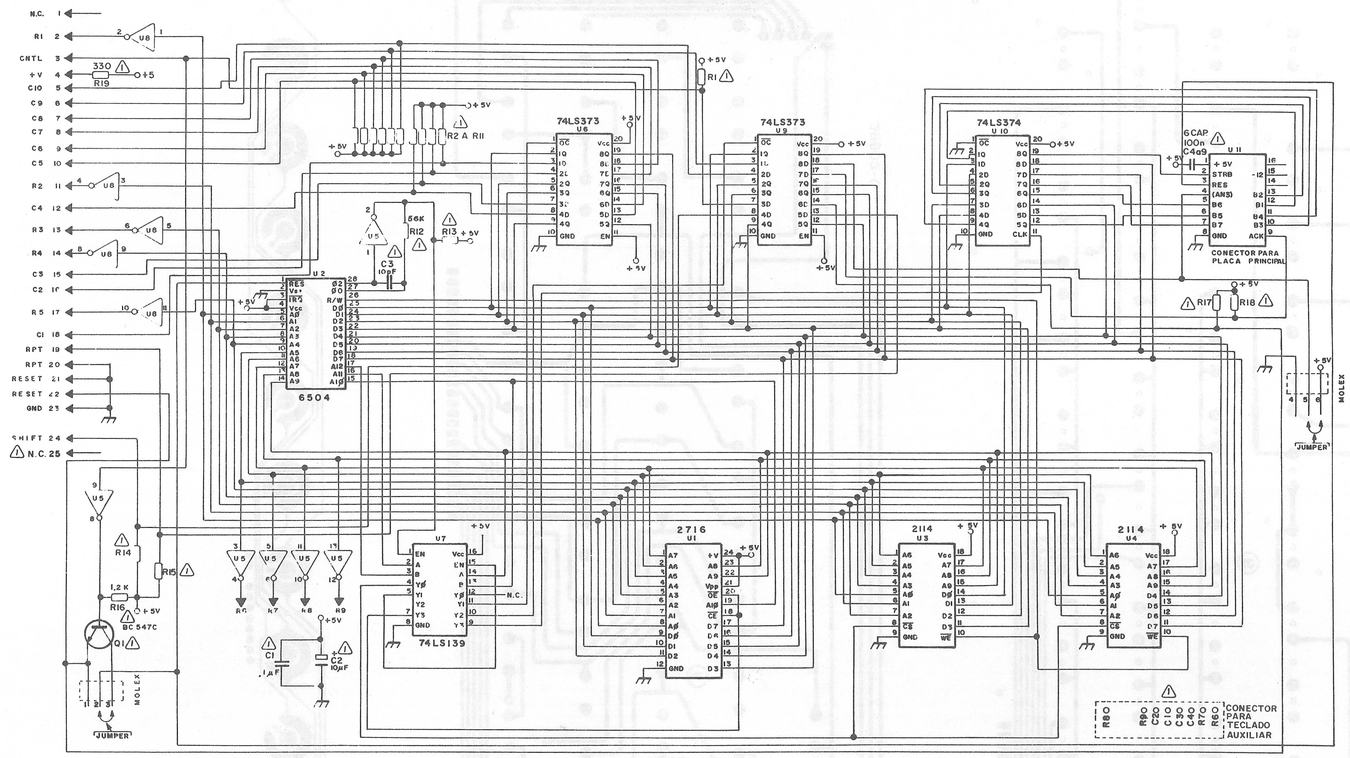

IC 501
TL 494 CN
IC 503
7812
IC 502
7805
GND
+ 5V
- 12V
- 5V
+ 12V
AMPL. ERRO
LIMIT. CORRENTE
Q 501
BD 329
Q 502
2SA 564 R
ou BC 557 B
Q 503
2SA 564 R
ou BC 557 B
Q 504
2SC 2553
Q 505
2SC 2553
Q 506
2SC 628 R
ou BC 647 C
Q 507
2SC 828 R
ou BC 647 C
TF 501
TF 502
110 V
220 V
AC
50/60 Hz
110 / 220 V
FUSIVEL
3A 20AG
POWER
ATERRAMENTO
PCI FONTE - 39602-0

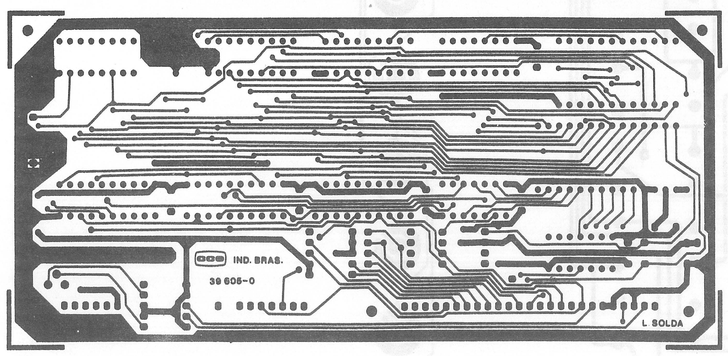
PCI CODIFICADOR DO TECLADO - 39604-0

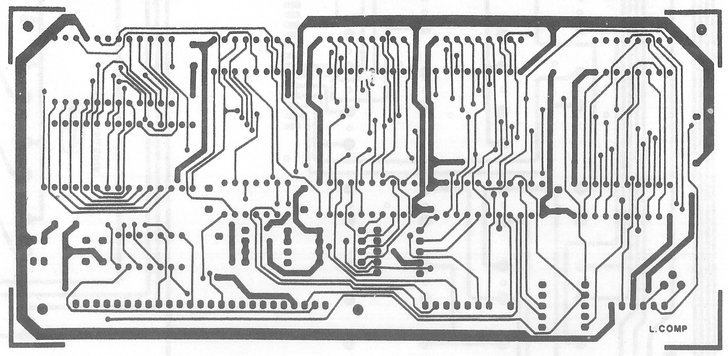


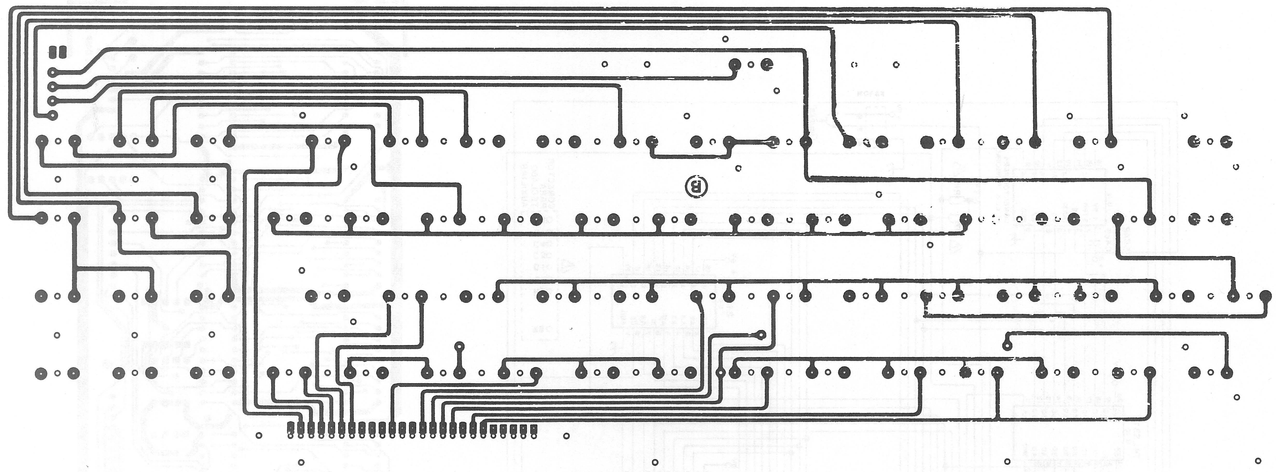


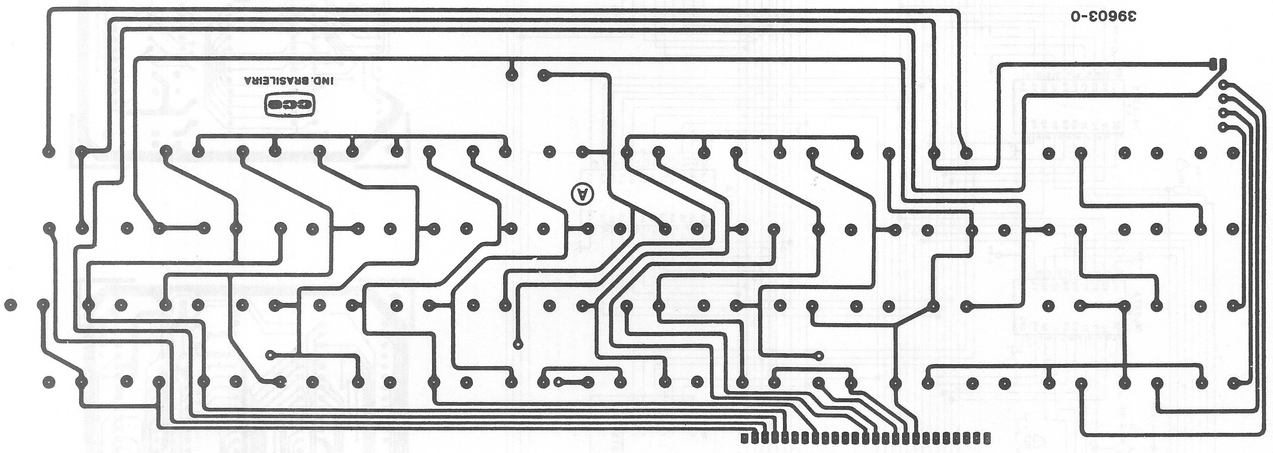


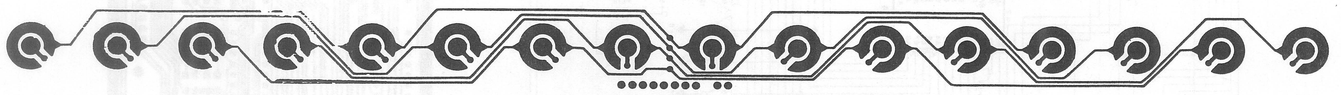

74LS373
74LS374
6504
2716
2114
74LS139
6CAP 100n
CONECTOR PARA PLACA PRINCIPAL
CONECTOR PARA TECLADO AUXILIAR
JUMPER
MOLEX
BC 547C


IND. BRAS.
36 605-0
L SOLDA

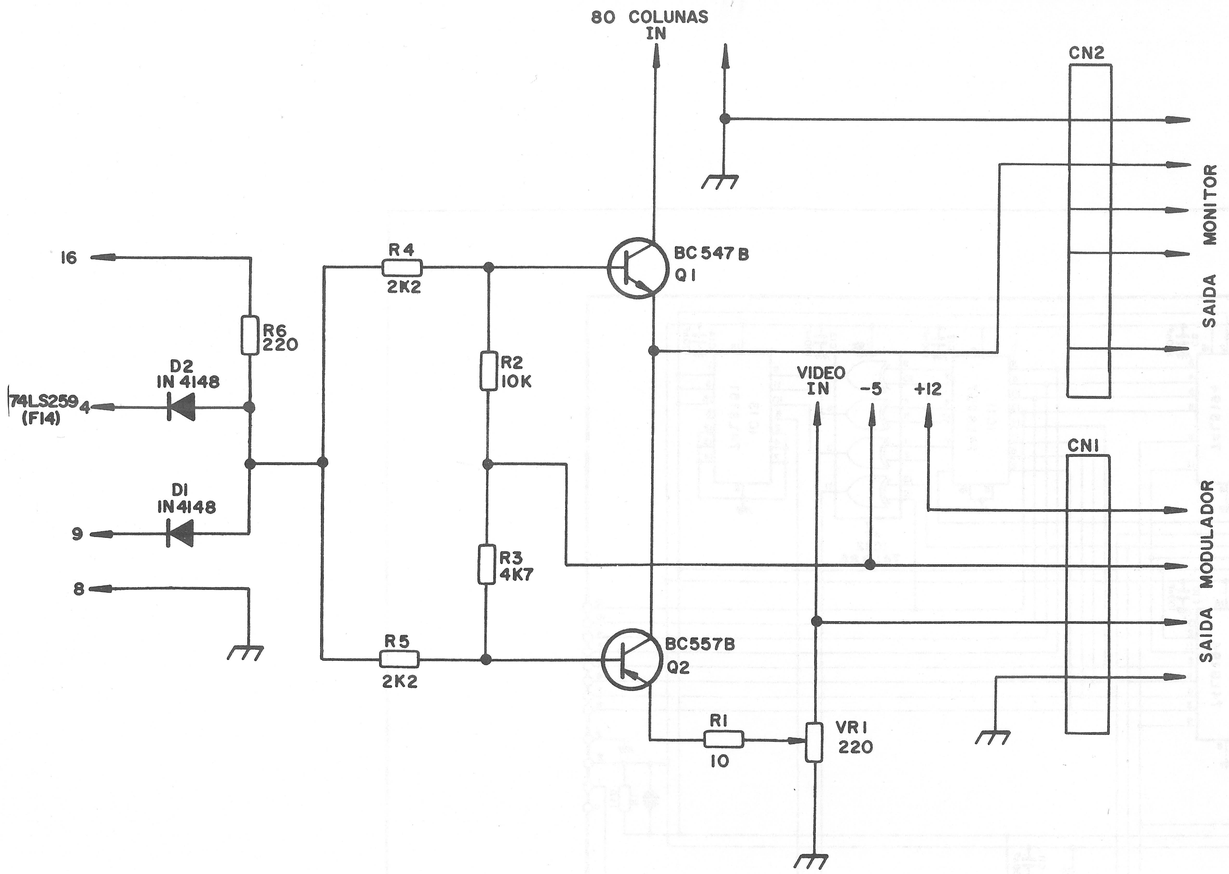

L.COMP

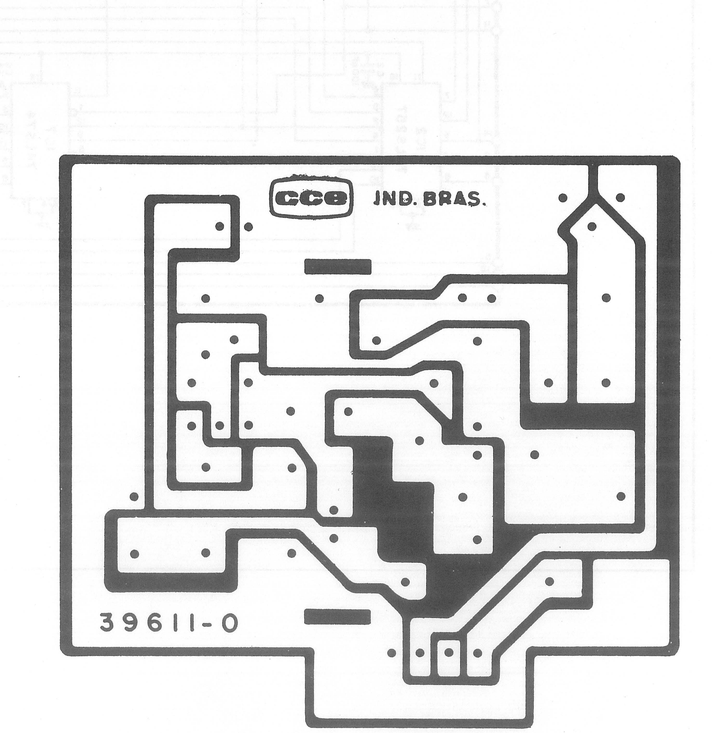


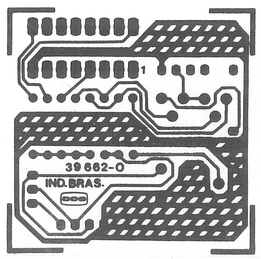

39603-0
IND. BRASILEIRA





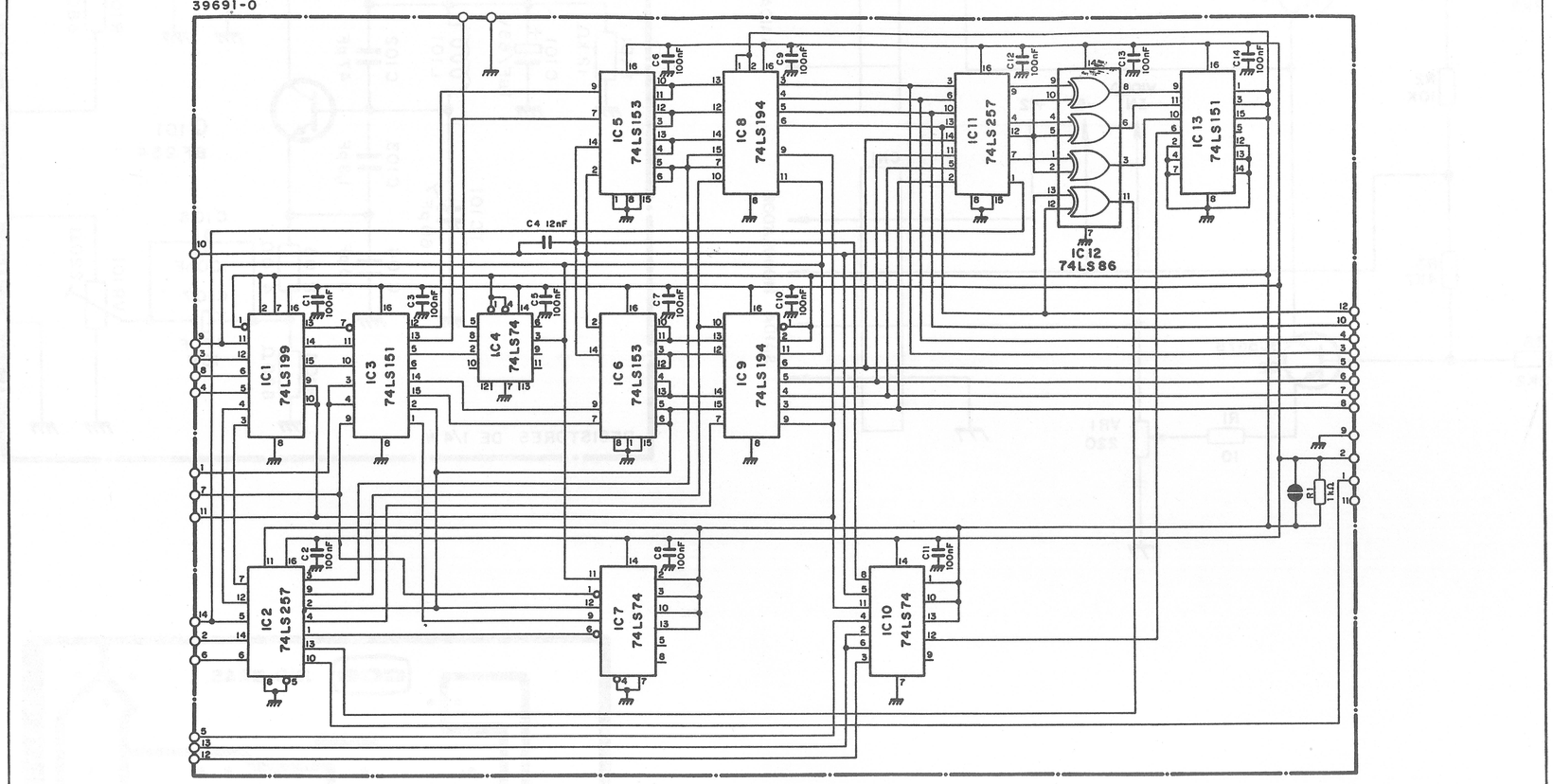

80 COLUNAS
IN
CN2
SAIDA MONITOR
16
R4
2K2
BC547B
Q1
R6
220
D2
IN4148
74LS259
(F14)
4
R2
10K
VIDEO
IN
-5
+12
CN1
SAIDA MODULADOR
DI
IN4148
9
R3
4K7
8
R5
2K2
BC557B
Q2
RI
10
VR1
220

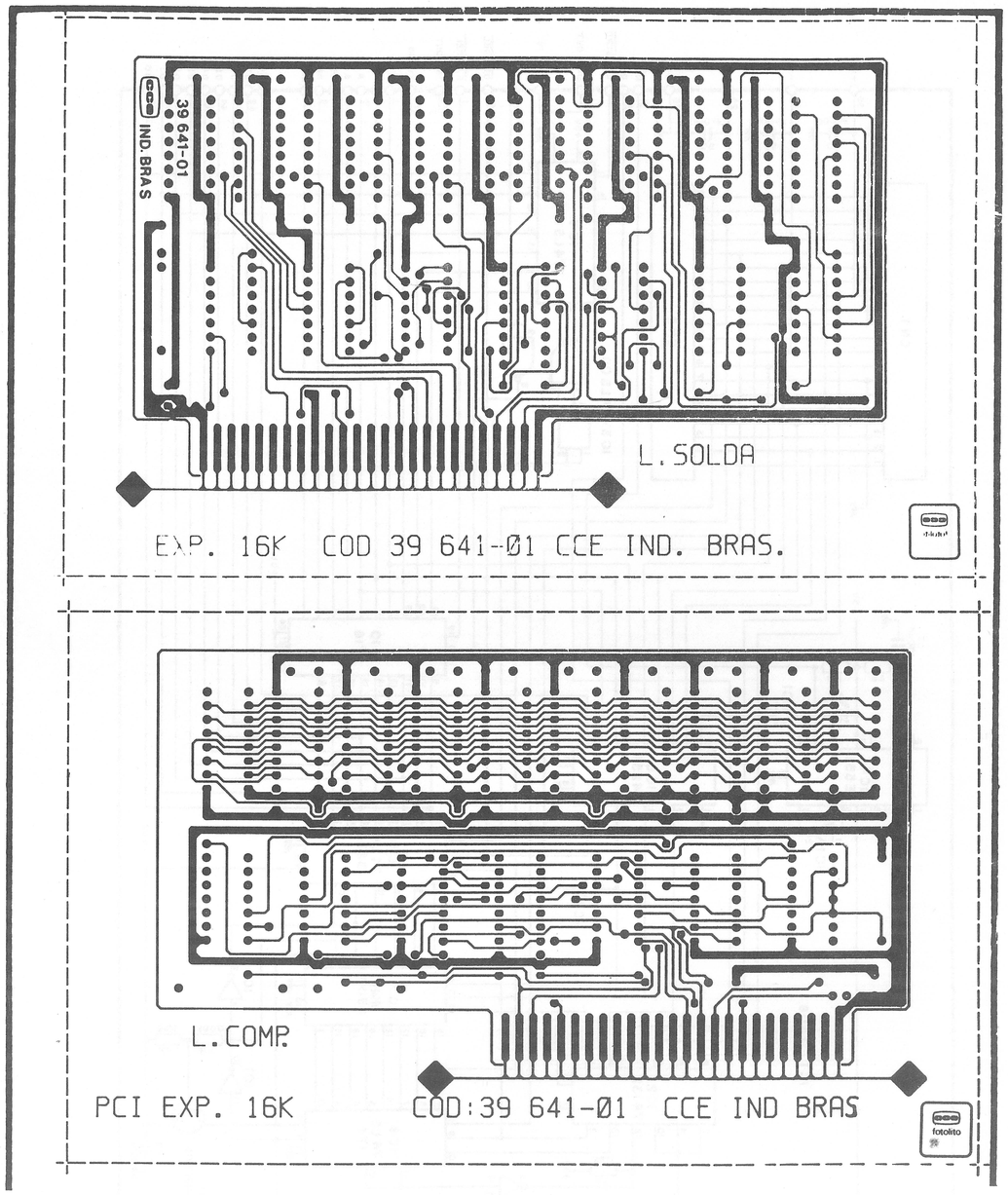

PCI MODULADOR DE RF
39611-0
R102
6,8kΩ
L102
C105
100nF
R105
680Ω
R101
12 kΩ
C101
1µF/63V
L101
C102
47pF
Q101
BF 254
C103
1,8pF
TC101
60pF
C104
33pF
R103
470Ω
C106
100nF
C107
47µF
16V
VR101
220Ω
R104
820Ω
RESISTORES DE 1/4W

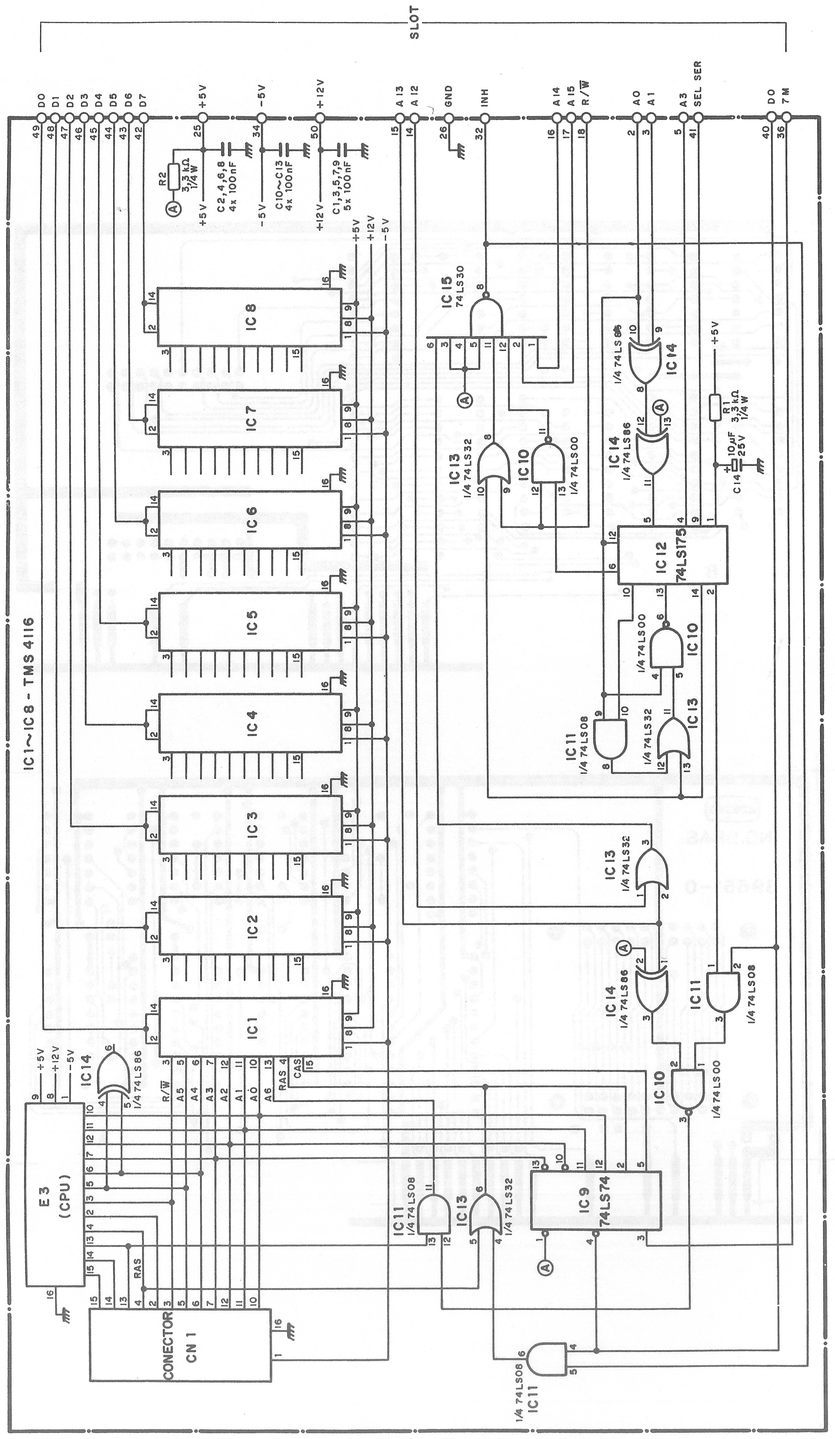

39662-0
IND.BRAS.
cce

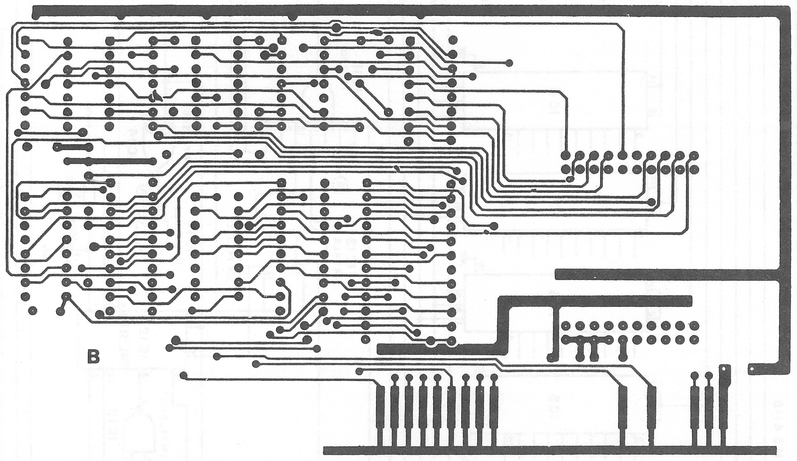
cce
IND. BRAS.
39611-0

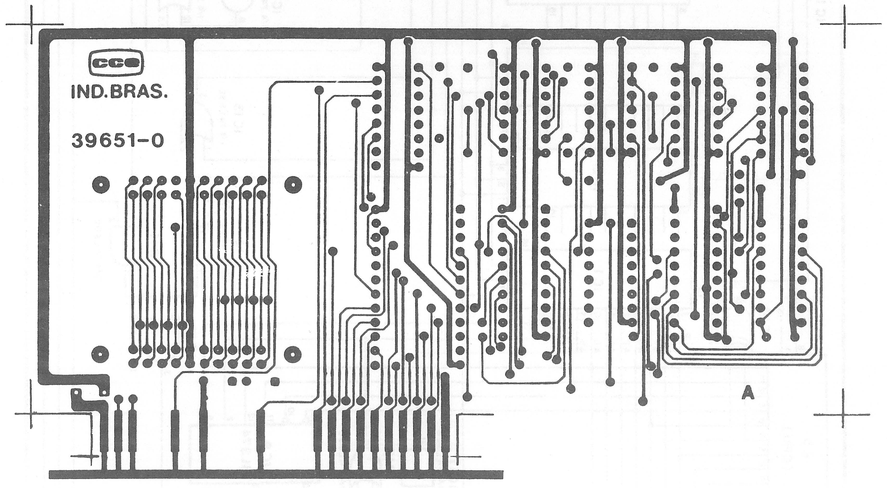
ADAPTADOR DE COR PAL-M
39691-0

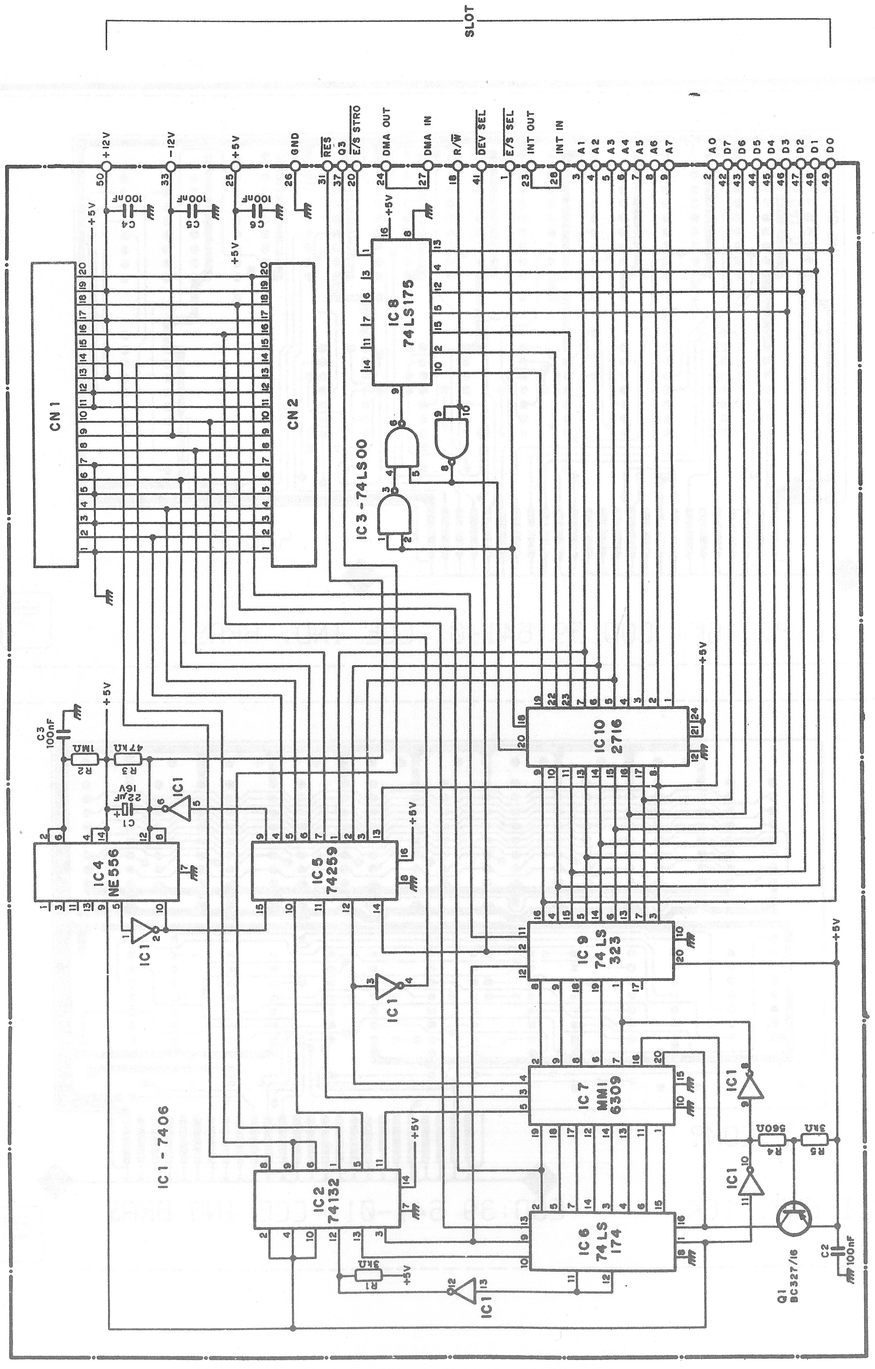


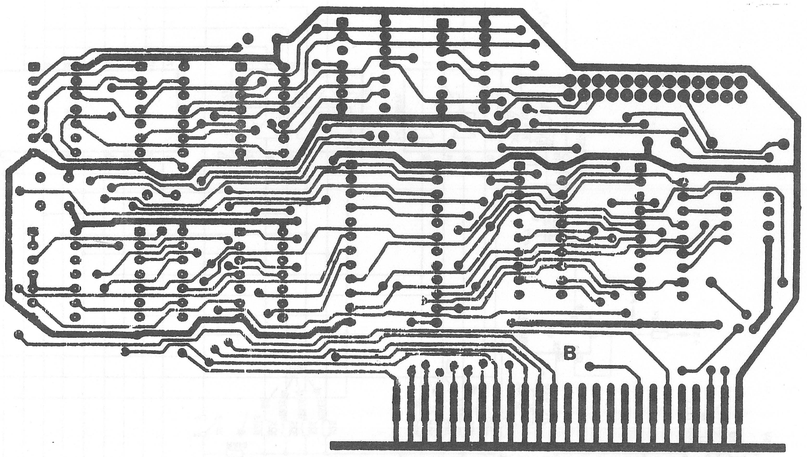

IND.BRAS
39 641-01
L.SOLDA
EXP. 16K COD 39 641-Ø1 CCE IND. BRAS.
L.COMP.
PCI EXP. 16K
COD:39 641-Ø1 CCE IND BRAS
fotolito

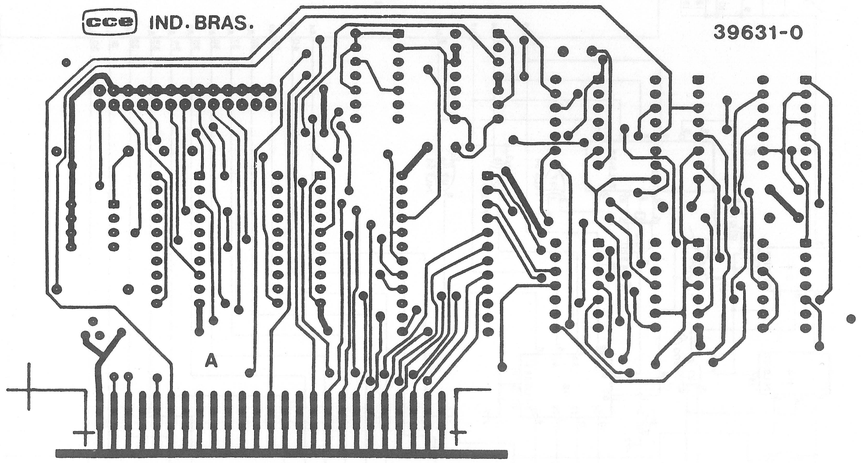

SLOT
IC1~IC8 - TMS 4116
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9 74LS74
IC10 1/4 74LS00
IC11 1/4 74LS08
IC12 74LS175
IC13 1/4 74LS32
IC14 1/4 74LS86
IC15 74LS30
E3 (CPU)
CONECTOR CN 1
R1 3,3kΩ 1/4W
R2 3,3kΩ 1/4W
C1,3,5,7,9 5x 100nF
C2,4,6,8 4x 100nF
C10~C13 4x 100nF
C14 10µF 25V
+5V
+12V
-5V
GND
INH
R/W
SEL SER

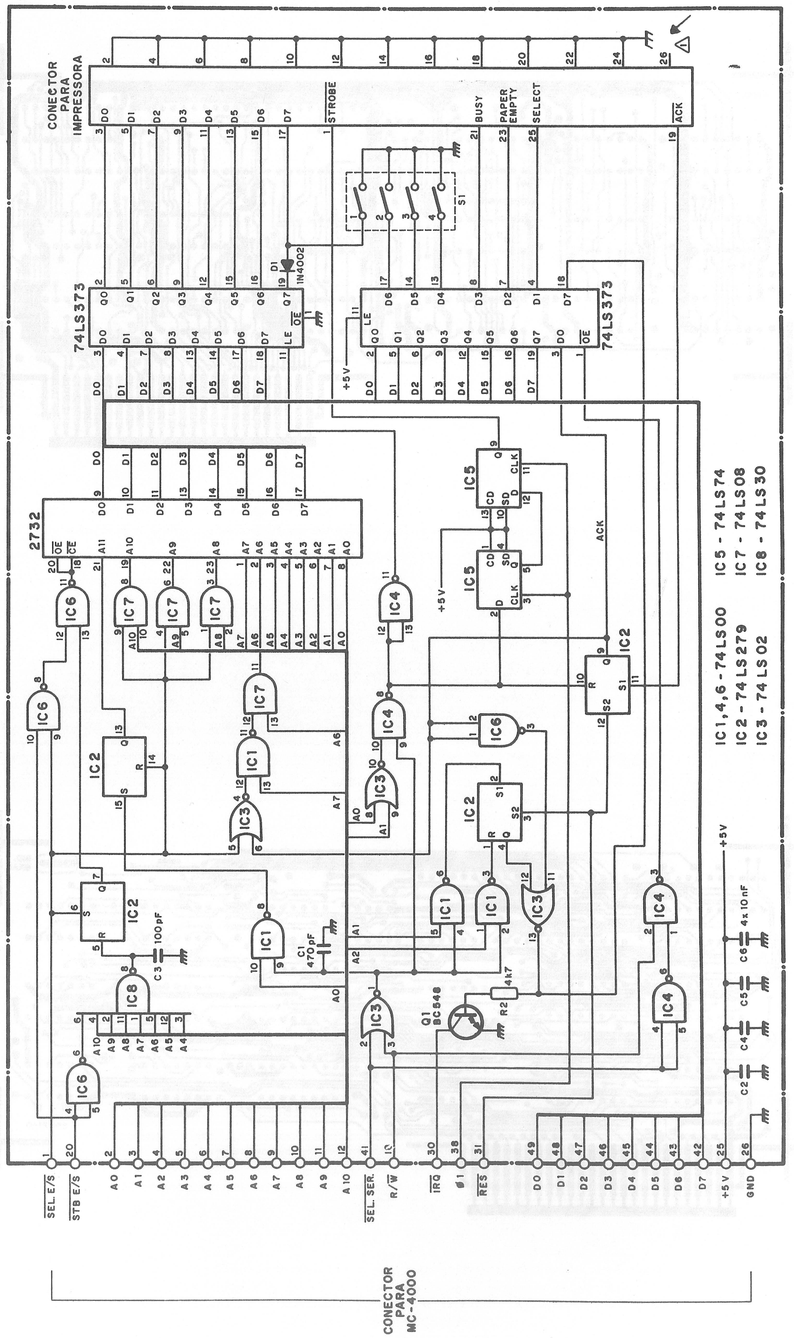

B

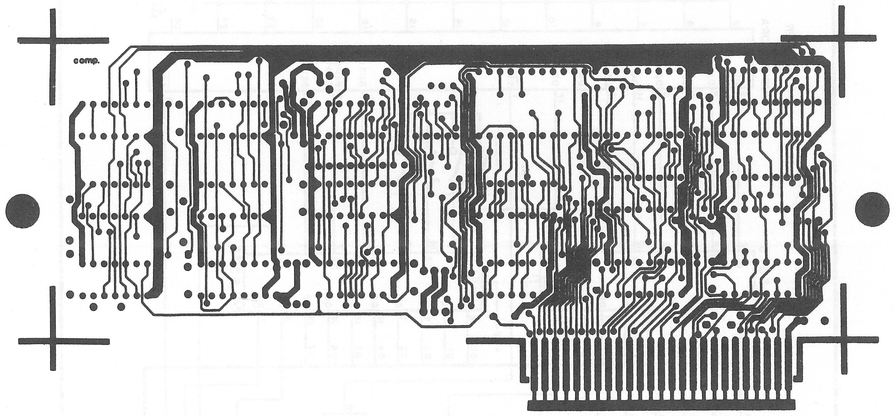

IND.BRAS.
39651-0
A

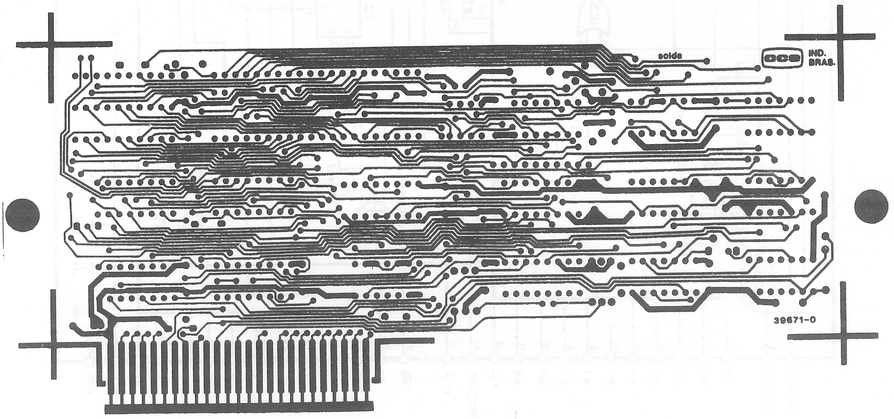

SLOT
CN 1
CN 2
IC 8 74LS175
IC3 - 74LS00
IC 10 2716
IC4 NE556
IC5 74259
IC 9 74 LS 323
IC7 MMI 6309
IC2 74132
IC6 74 LS 174
IC1 - 7406
Q1 BC327/16
+5V
+12V
-12V
GND
RES
Q3
E/S STRO
DMA OUT
DMA IN
R/W
DEV SEL
E/S SEL
INT OUT
INT IN
A0
A1
A2
A3
A4
A5
A6
A7
D0
D1
D2
D3
D4
D5
D6
D7

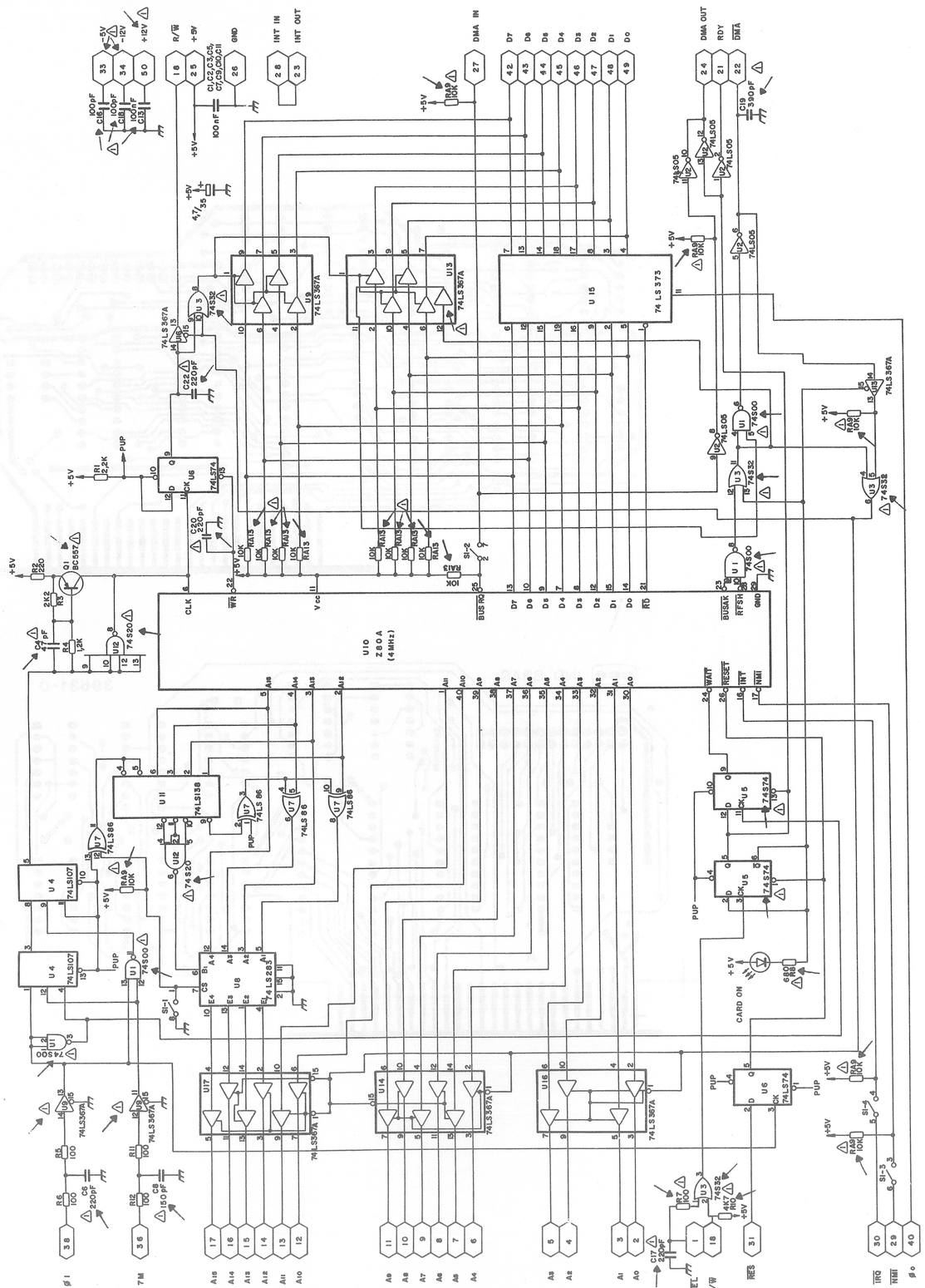

B

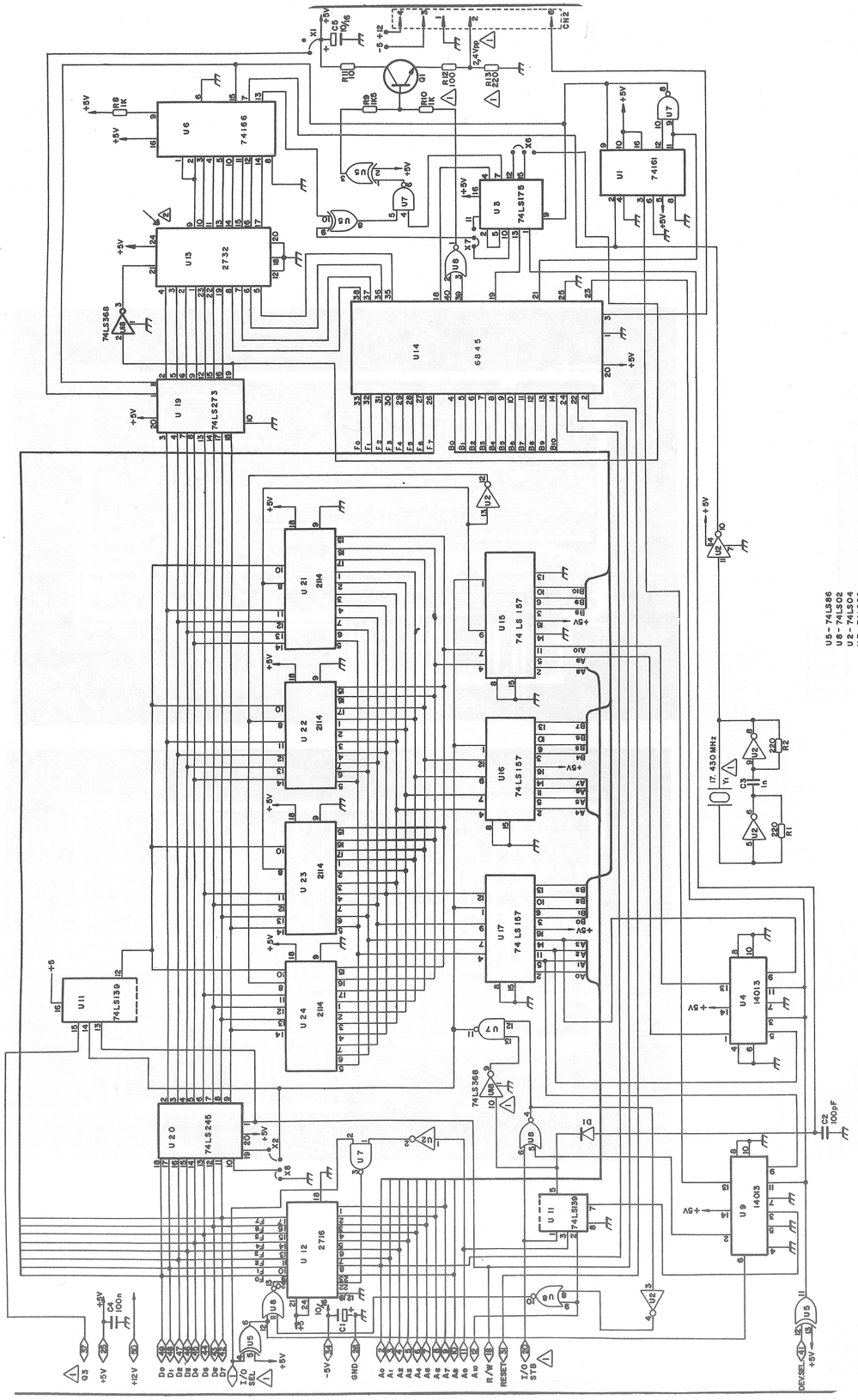

cce IND. BRAS.
39631-0
A

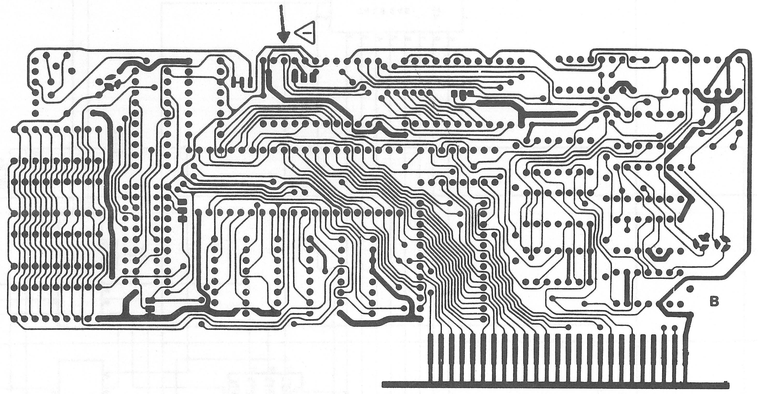

CONECTOR PARA IMPRESSORA
STROBE
BUSY
PAPER EMPTY
SELECT
ACK
74LS373
IN4002
S1
2732
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
C1 470pF
C3 100pF
Q1 BC548
R2 4k7
C2 C4 C5 C6 4x10nF
+5V
ACK
IC5 - 74LS74
IC7 - 74LS08
IC8 - 74LS30
IC1,4,6 - 74LS00
IC2 - 74LS279
IC3 - 74LS02
SEL E/S
STB E/S
SEL SER.
R/W
IRQ
RES
GND
CONECTOR PARA MC-4000

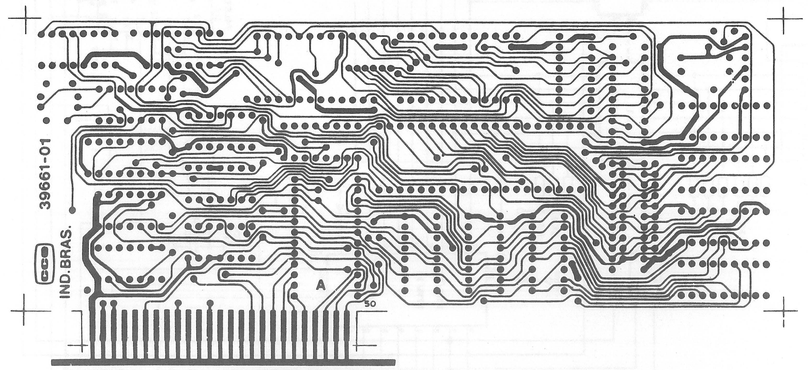

comp.


soide
IND.
BRAS.
39671-0

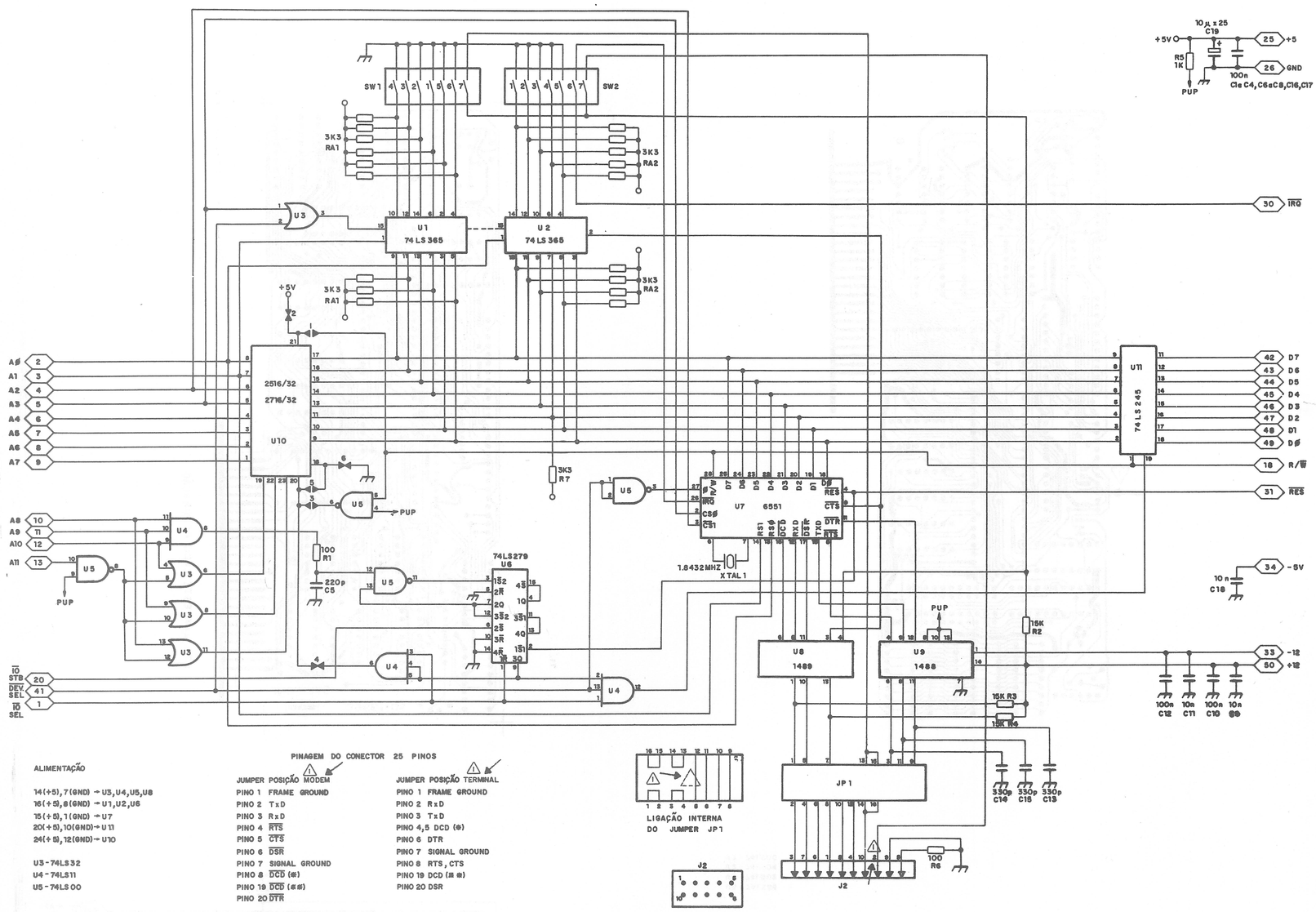

DMA IN
DMA OUT
INT IN
INT OUT
R/W
U10
Z80A
(4 MHz)
74LS367A
74LS373
74LS374
74LS86
74LS138
74LS285
74LS107
74LS08
74LS32
74LS00
74LS20
BC557
CARD ON
TOGGEL
RES
IRQ
WAIT
BUSAK
RFSH
BUSRQ
RESET
NMI
GND







UTILIZAR ESTE LADO P/ FURAÇÃO



ALIMENTAÇÃO

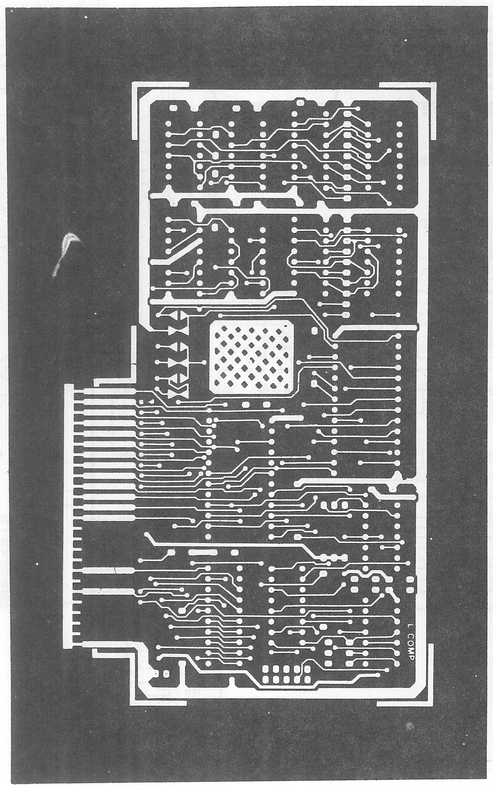
14(+5), 7(GND) → U3, U4, U5, U8
16(+5), 8(GND) → U1, U2, U6
15(+5), 1(GND) → U7
20(+5), 10(GND) → U11
24(+5), 12(GND) → U10

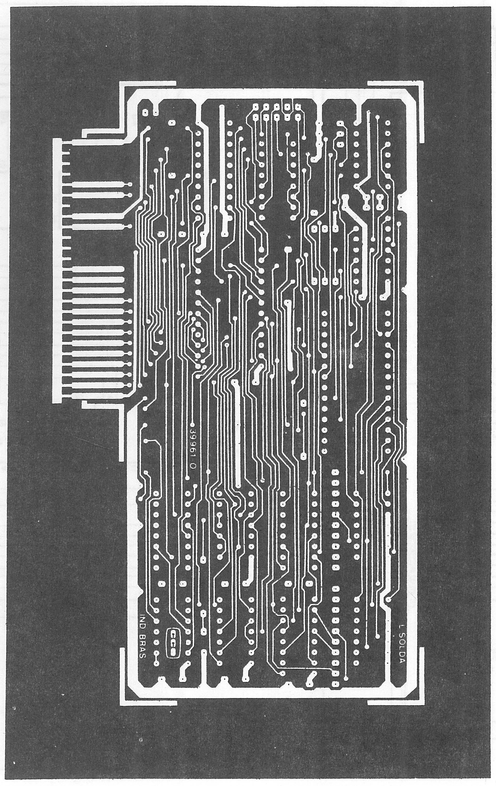
U3 - 74LS32
U4 - 74LS11
U5 - 74LS00

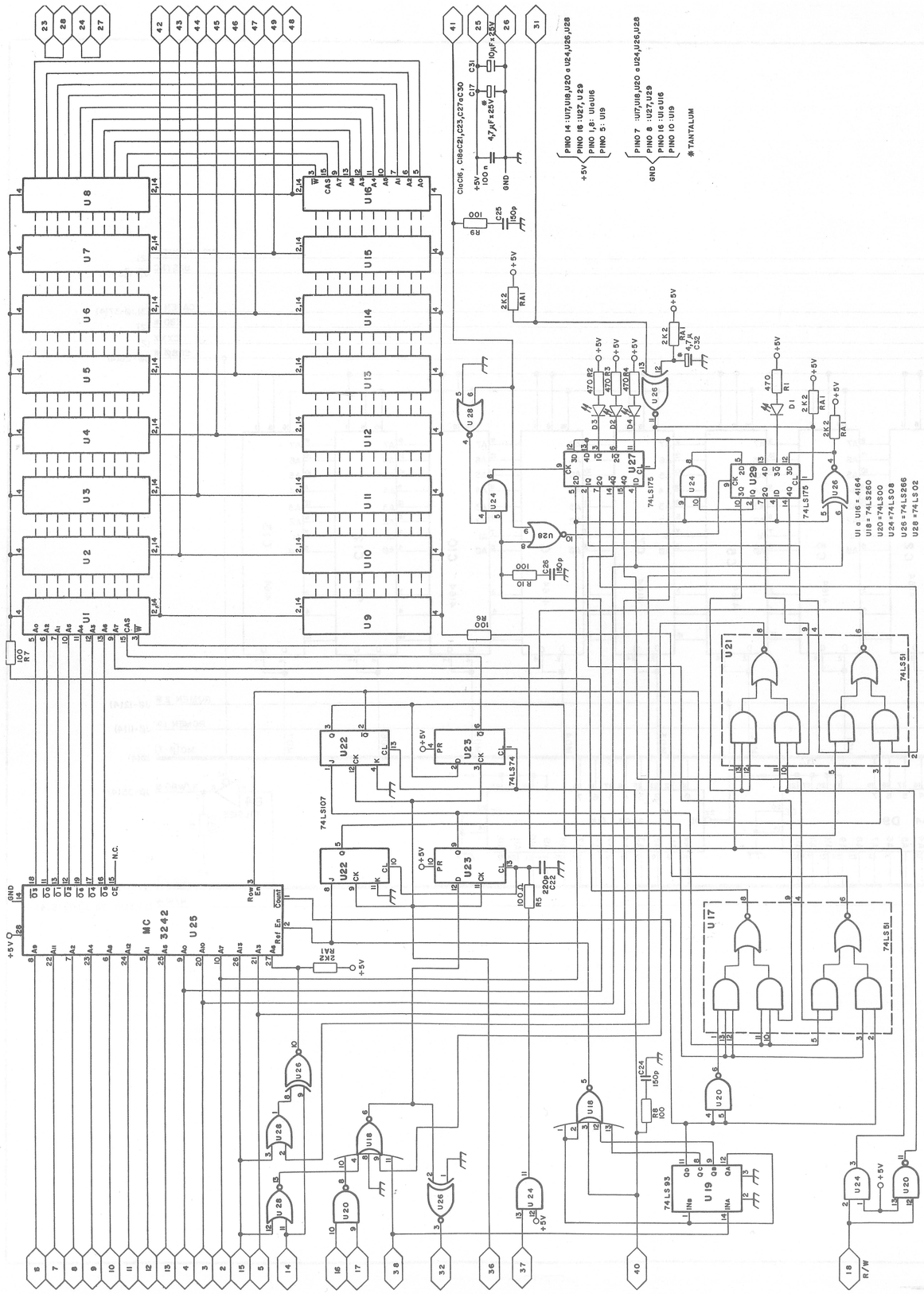
PINAGEM DO CONECTOR 25 PINOS

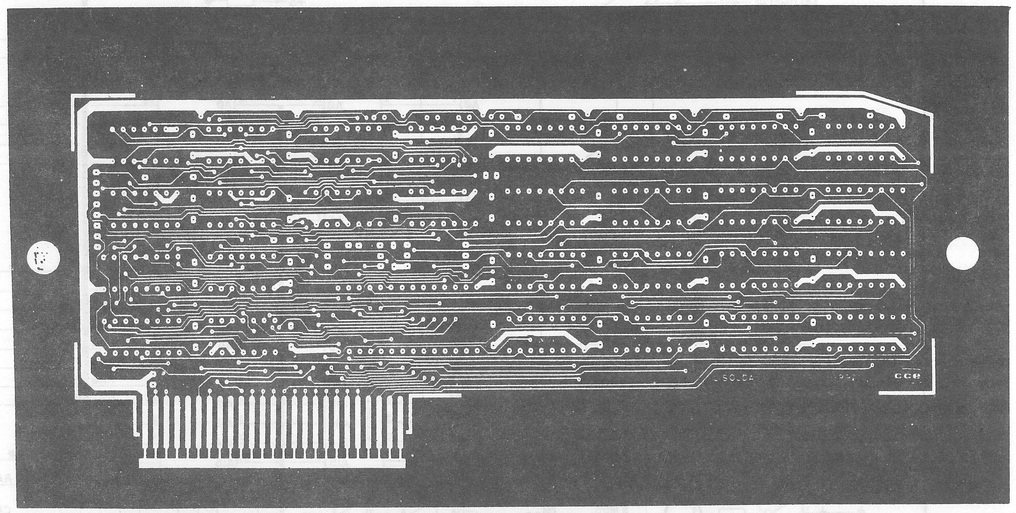
JUMPER POSIÇÃO MODEM	JUMPER POSIÇÃO TERMINAL
PINO 1 FRAME GROUND	PINO 1 FRAME GROUND
PINO 2 TxD	PINO 2 RxD
PINO 3 RxD	PINO 3 TxD
PINO 4 $\overline{RTS}$	PINO 4,5 DCD (*)
PINO 5 $\overline{CTS}$	PINO 6 DTR
PINO 6 $\overline{DSR}$	PINO 7 SIGNAL GROUND
PINO 7 SIGNAL GROUND	PINO 8 RTS, CTS
PINO 8 $\overline{DCD}$ (*)	PINO 19 DCD (**)
PINO 19 $\overline{DCD}$ (**)	PINO 20 DSR
PINO 20 $\overline{DTR}$	

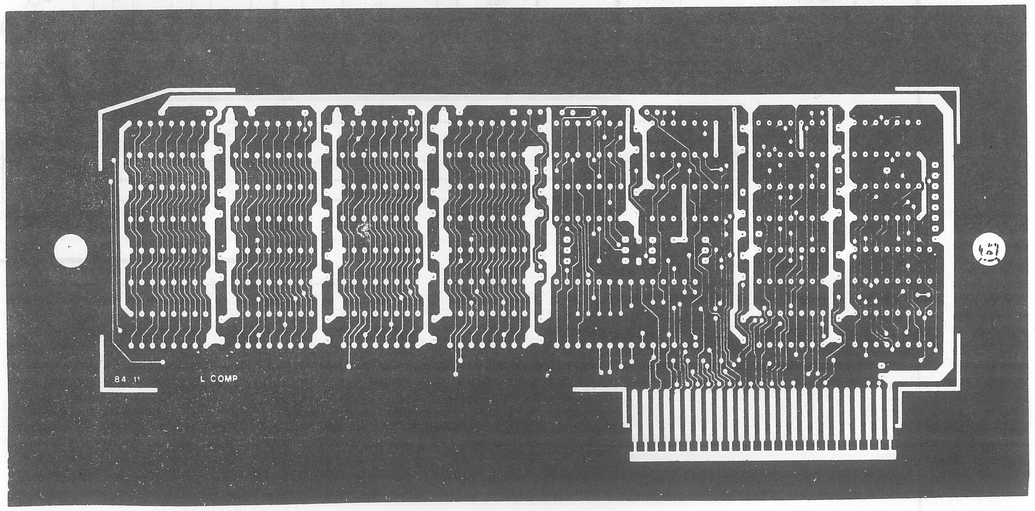
(*) DISPONIVEL SE SW1-7 FECHADA
(**) DISPONIVEL SE SW2-7 FECHADA

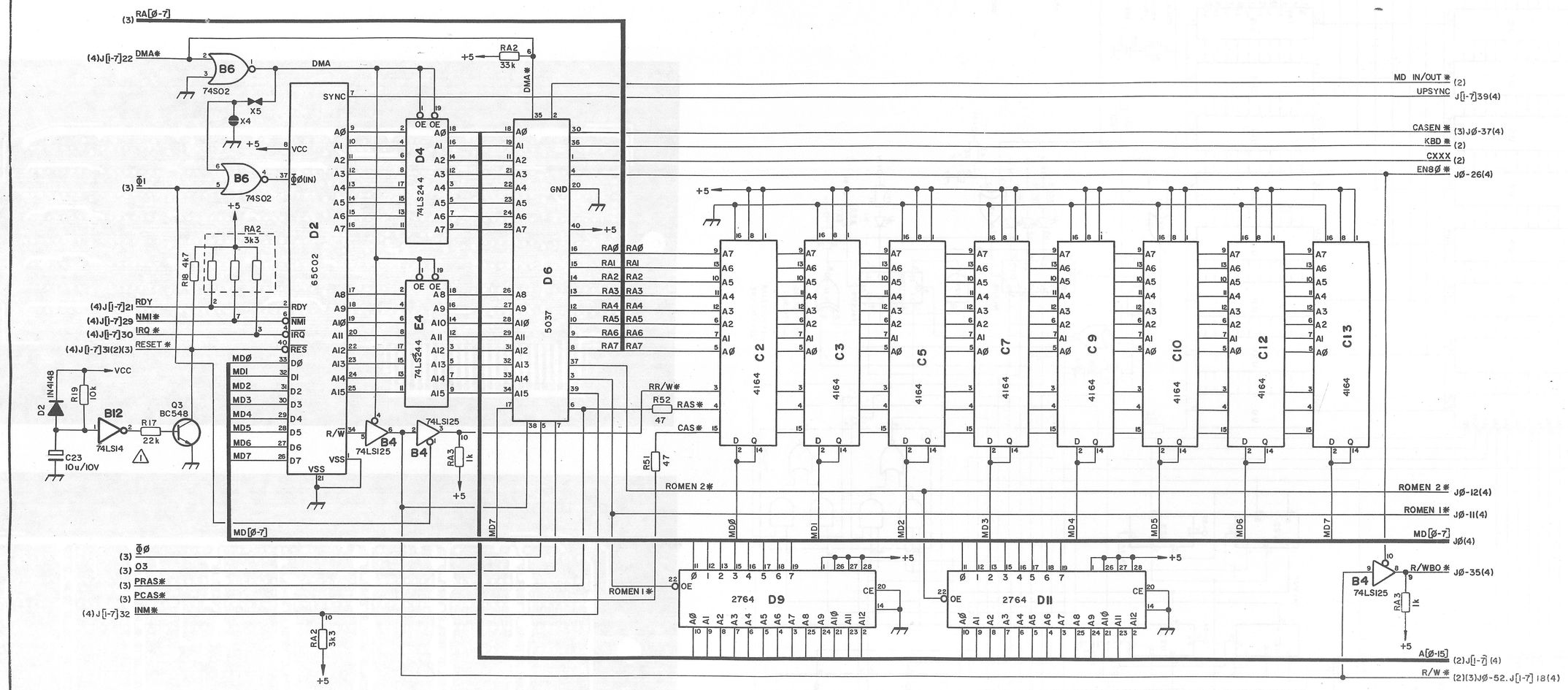


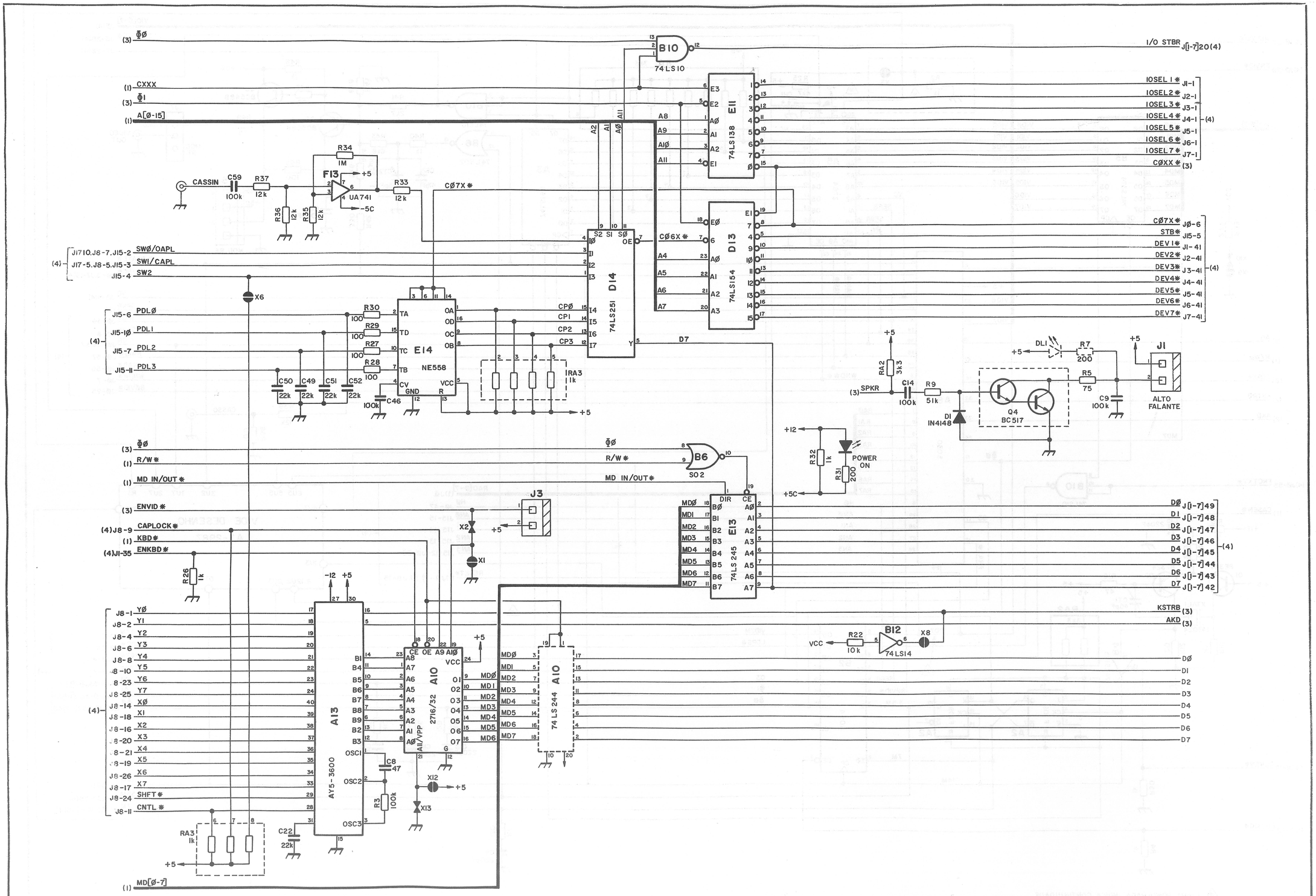


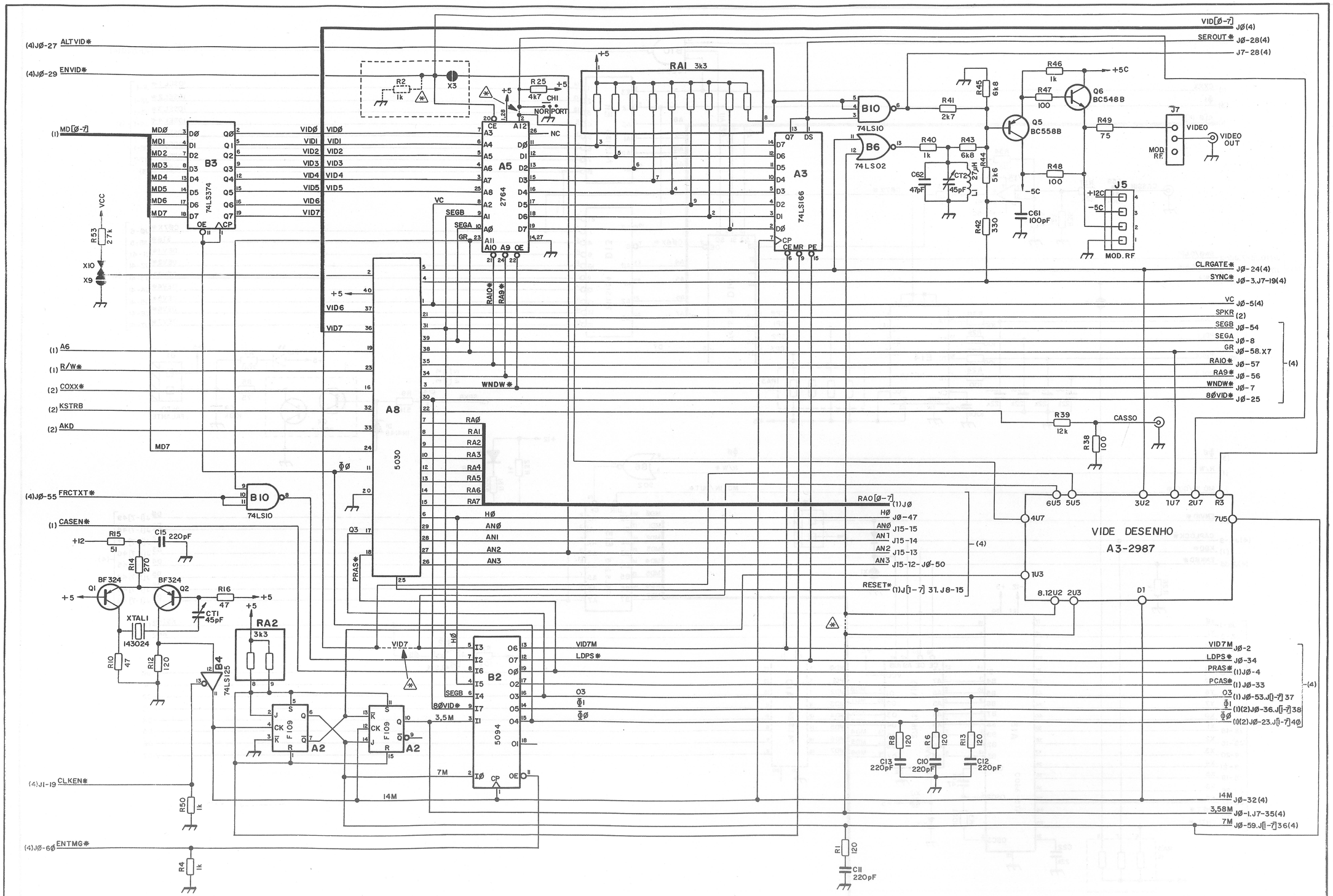

U1 a U16 = 4164
U18 = 74LS260
U20 = 74LS00
U24 = 74LS08
U26 = 74LS266
U28 = 74LS02
74LS107
74LS175
74LS74
74LS51
74LS93
MC 3242 U 25
+5V
GND
100 nF
4,7µF x 25V
10µF x 25V
2K2
470
100
150p
4,7K
220p
* TANTALUM

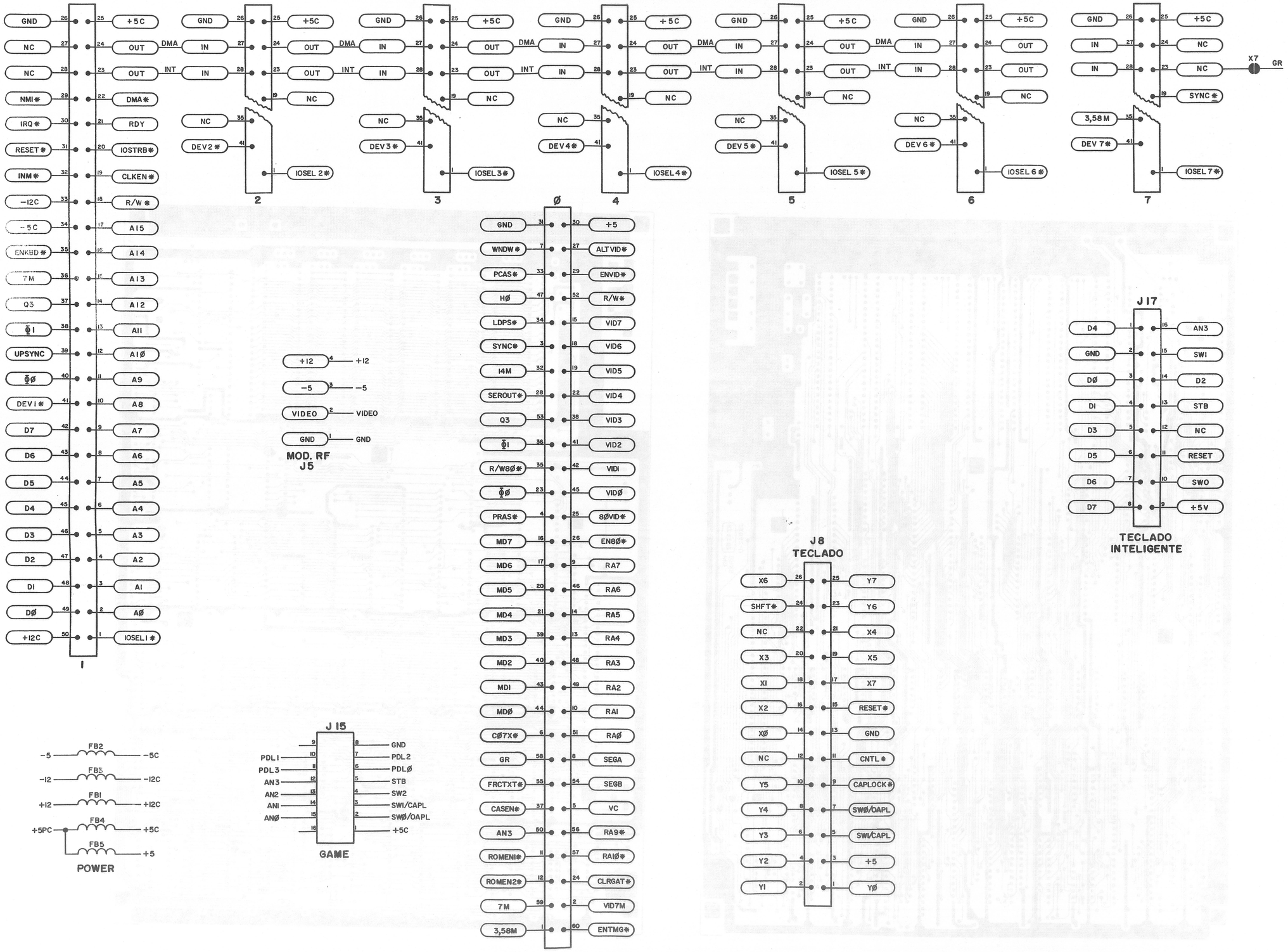


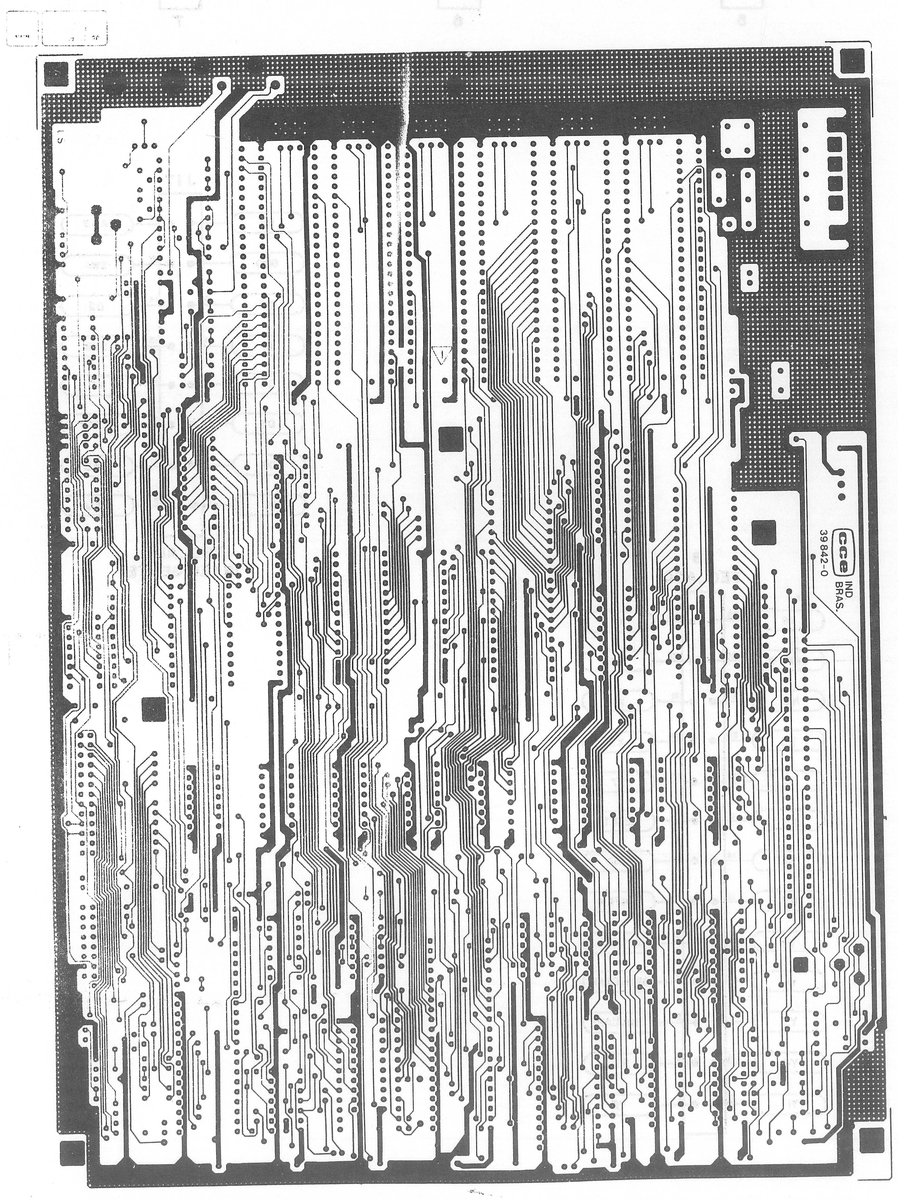

L COMP

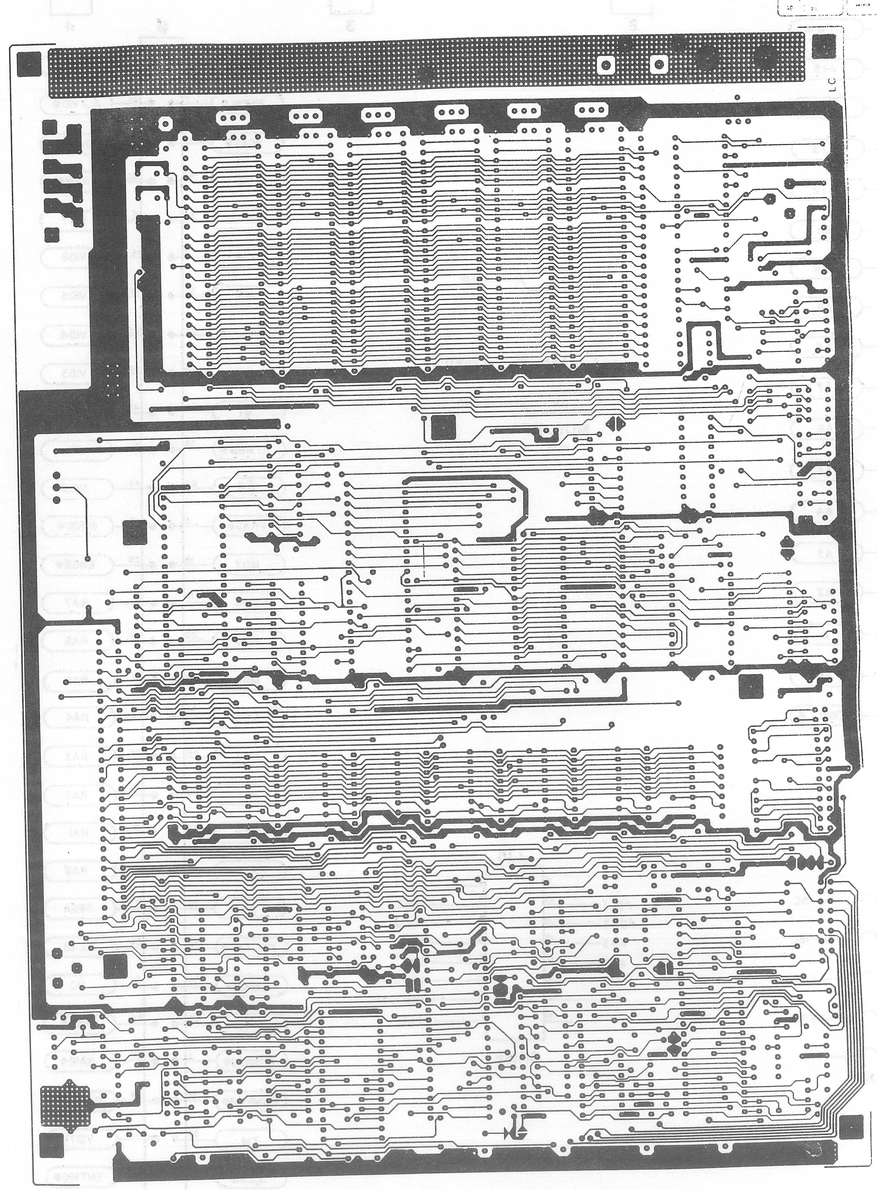

(3) RA[Ø-7]
(4)J[1-7]22 DMA*
B6
74SO2
DMA
+5
RA2
33k
DMA*
SYNC
X5
X4
VCC
(3) Ø1
ØØ(IN)
RA2
3k3
R18 4k7
(4)J[1-7]21 RDY
(4)J[1-7]29 NMI*
(4)J[1-7]30 IRQ*
(4)J[1-7]31(2)(3) RESET*
MDØ
MDI
MD2
MD3
MD4
MD5
MD6
MD7
D2
65C02
D4
74LS244
E4
D6
5037
GND
RAØ
RA1
RA2
RA3
RA4
RA5
RA6
RA7
RR/W*
R52 47
RAS*
CAS*
R51 47
R/W
VSS
B4
74LS125
RA3 1k
D2 IN4148
R19 10k
B12
74LS14
R17 22k
Q3 BC548
C23 10u/10V
MD IN/OUT* (2)
UPSYNC
J[1-7]39(4)
CASEN* (3)JØ-37(4)
KBD* (2)
CXXX (2)
EN8Ø* JØ-26(4)
C2 C3 C5 C7 C9 C10 C12 C13
4164
ROMEN 2*
ROMEN 1*
MD[Ø-7]
JØ(4)
ROMEN 2* JØ-12(4)
ROMEN 1* JØ-11(4)
(3) ØØ
(3) O3
(3) PRAS*
(3) PCAS*
(4)J[1-7]32 INM*
D9 2764
D11 2764
R/WBO* JØ-35(4)
A[Ø-15] (2)J[1-7](4)
R/W* (2)(3)JØ-52, J[1-7]18(4)

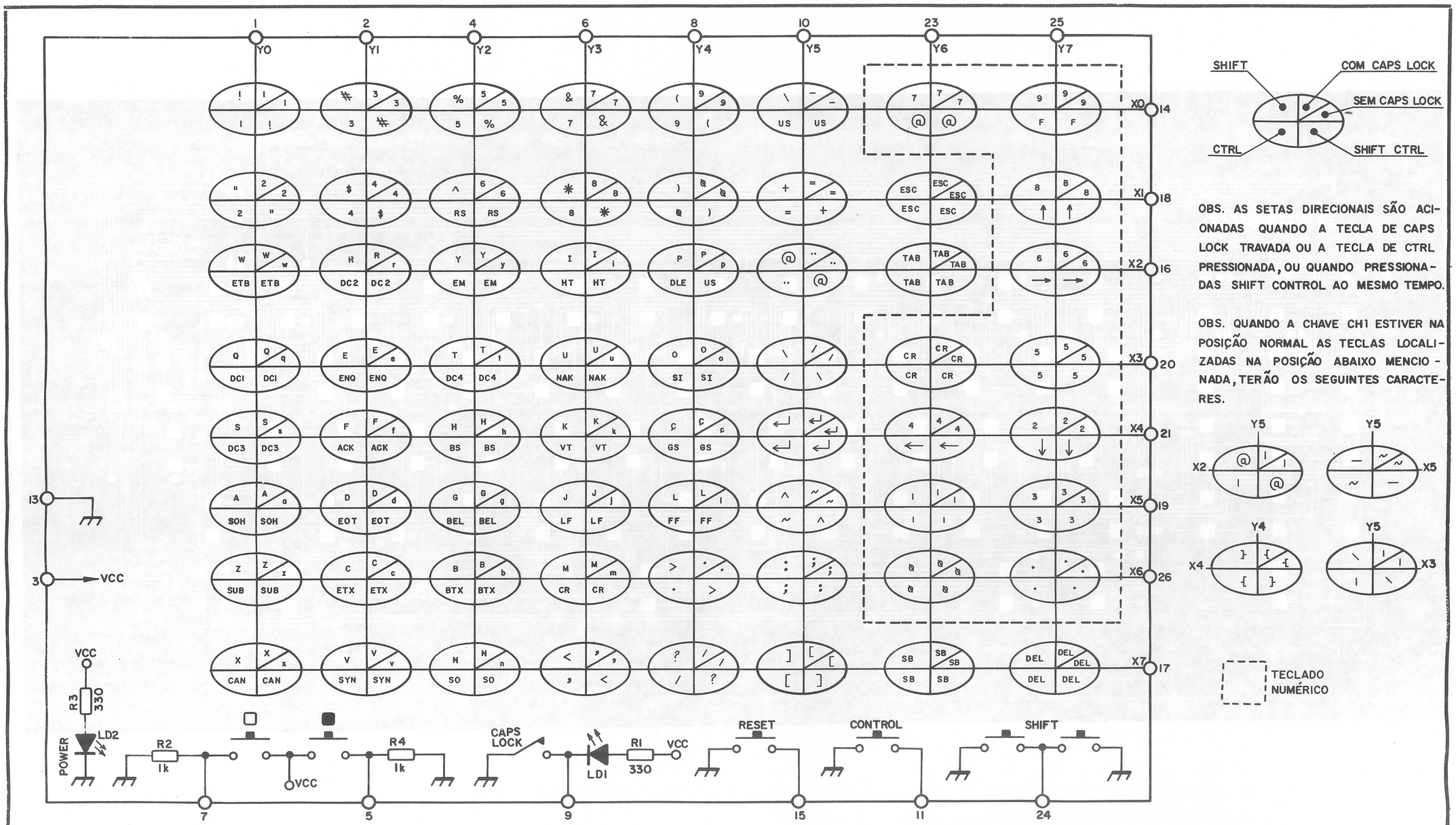

(3) ΦØ
B10
74LS10
I/O STBR J[1-7]20(4)
(1) CXXX
(3) ΦI
(1) A[Ø-15]
E11
74LS138
IOSEL 1* J1-1
IOSEL 2* J2-1
IOSEL 3* J3-1
IOSEL 4* J4-1
IOSEL 5* J5-1
IOSEL 6* J6-1
IOSEL 7* J7-1
CØXX* (3)
(4)
R34 1M
F13
UA741
+5
-5C
CASSIN
C59 100k
R37 12k
R33 12k
CØ7X*
R36 12k
R35 12k
D13
74LS154
CØ6X*
CØ7X* JØ-6
STB* J15-5
DEV1* J1-41
DEV2* J2-41
DEV3* J3-41
DEV4* J4-41
DEV5* J5-41
DEV6* J6-41
DEV7* J7-41
(4)
J17-10.J8-7.J15-2 SWØ/OAPL
J17-5.J8-5.J15-3 SWI/CAPL
J15-4 SW2
X6
D14
74LS251
E14
NE558
J15-6 PDLØ
J15-10 PDL1
J15-7 PDL2
J15-11 PDL3
R30 100
R29 100
R27 100
R28 100
C50 22k
C49 22k
C51 22k
C52 22k
C46 100k
RA3 1k
CPØ
CP1
CP2
CP3
D7
RA2 3k3
C14 100k
R9 51k
(3) SPKR
D1 IN4148
Q4 BC517
DL1
R7 200
R5 75
C9 100k
J1
ALTO FALANTE
+12
R32 1k
POWER ON
R31 200
+5C
(3) ΦØ
(1) R/W*
(1) MD IN/OUT*
B6
SO2
E13
74LS 245
MDØ MDI MD2 MD3 MD4 MD5 MD6 MD7
DØ DI D2 D3 D4 D5 D6 D7
J[1-7]49 J[1-7]48 J[1-7]47 J[1-7]46 J[1-7]45 J[1-7]44 J[1-7]43 J[1-7]42
(4)
(3) ENVID*
(4)J8-9 CAPLOCK*
(1) KBD*
(4)J1-35 ENKBD*
R26 1k
J3
X2
X1
-12 +5
A13
AY5-3600
J8-1 YØ
J8-2 YI
J8-4 Y2
J8-6 Y3
J8-8 Y4
J8-10 Y5
J8-23 Y6
J8-25 Y7
J8-14 XØ
J8-18 XI
J8-16 X2
J8-20 X3
J8-21 X4
J8-19 X5
J8-26 X6
J8-17 X7
J8-24 SHFT*
J8-11 CNTL*
(4)
C8 47
R3 100k
XI2
XI3
C22 22k
RA3 1k
A10
2716/32
A10
74 LS 244
KSTRB (3)
AKD (3)
B12
74 LS14
R22 10k
X8
VCC
(1) MD[Ø-7]


VID[Ø-7] JØ(4)
SEROUT* JØ-28(4)
J7-28(4)
(4)JØ-27 ALTVID*
(4)JØ-29 ENVID*
(1) MD[Ø-7]
B3 74LS374
MDØ MD1 MD2 MD3 MD4 MD5 MD6 MD7
VIDØ VID1 VID2 VID3 VID4 VID5 VID6 VID7
A5 2764
VC SEGB SEGA GR
A11 A10 A9 OE
A12 NC
CE
R2 1k
X3
R25 4k7
CH1
NORMPORT
+5
RA1 3k3
B10 74LS10
B6 74LS02
R41 2k7
R45 6k8
R46 1k
R47 100
Q6 BC548B
Q5 BC558B
R49 75
R48 100
+5C
-5C
J7
VIDEO
VIDEO OUT
MOD RF
J5
+12C
-5C
MOD.RF
R40 1k
R43 6k8
R44 5k6
C62 47pF
CT2 45pF
L1 27µH
C61 100pF
R42 330
A3 74LS166
Q7 DS D7 D6 D5 D4 D3 D2 D1 DØ CP CE MR PE
R53 2.7k
VCC
X10
X9
CLRGATE* JØ-24(4)
SYNC* JØ-3,J7-19(4)
VC JØ-5(4)
SPKR (2)
SEGB JØ-54
SEGA JØ-8
GR JØ-58.X7
RAIO* JØ-57
RA9* JØ-56
WNDW* JØ-7
8ØVID* JØ-25
(4)
(1) A6
(1) R/W*
(2) COXX*
(2) KSTRB
(2) AKD
MD7
A8 5030
ΦØ
Q3
PRAS*
RAIO*
RA9*
WNDW*
RAØ RA1 RA2 RA3 RA4 RA5 RA6 RA7
HØ ANØ AN1 AN2 AN3
R39 12k
CASSO
R38 100
(4)JØ-55 FRCTXT*
B10 74LS10
(1) CASEN*
+12
R15 51
C15 220pF
R14 270
Q1 BF324
Q2 BF324
R16 47
CT1 45pF
XTAL1 143024
R10 47
R12 120
B4 74LS125
RA2 3k3
VID7
HØ
B2 5094
I3 I2 I6 I5 I4 I7 I1
O6 O7 OØ O2 O3 O5 O4 O1
SEGB
8ØVID*
3,5M
7M
14M
IØ CP OE
F 109 A2
F 109 A2
RAØ[Ø-7] (1)JØ
HØ JØ-47
ANØ J15-15
AN1 J15-14
AN2 J15-13
AN3 J15-12-JØ-50
RESET* (1)J[1-7] 31. J8-15
(4)
6U5 5U5 3U2 1U7 2U7 R3
4U7 7U5
1U3
8.12U2 2U3 D1
VIDE DESENHO
A3-2987
VID7M JØ-2
LDPS* JØ-34
PRAS* (1)JØ-4
PCAS* (1)JØ-33
O3 (1)JØ-53.J[1-7]37
ΦI (1)(2)JØ-36.J[1-7]38
ΦØ (1)(2)JØ-23.J[1-7]4Ø
(4)
R8 120
R6 120
R13 120
C13 220pF
C10 220pF
C12 220pF
14M JØ-32(4)
3,58M JØ-1.J7-35(4)
7M JØ-59.J[1-7]36(4)
R1 120
C11 220pF
(4)J1-19 CLKEN*
R50 1k
(4)JØ-6Ø ENTMG*
R4 1k
LINHA PONTILHADA INDICA CONTINUIDADE
NA LIGAÇÃO P/ CPU SEM PLACA PAL-ME


GND
NC
NC
NMI*
IRQ*
RESET*
INM*
-12C
-5C
ENKBD*
7M
Q3
Ø1
UPSYNC
ØØ
DEV1*
D7
D6
D5
D4
D3
D2
D1
DØ
+12C
+5C
DMA*
RDY
IOSTRB*
CLKEN*
R/W*
A15
A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
AØ
IOSEL1*
1
DMA
INT
IN
OUT
NC
DEV2*
IOSEL 2*
2
DEV3*
IOSEL3*
3
DEV4*
IOSEL4*
4
DEV5*
IOSEL 5*
5
DEV6*
IOSEL 6*
6
3,58M
DEV7*
IOSEL 7*
7
SYNC*
X7
GR
Ø
+5
WNDW*
PCAS*
HØ
LDPS*
SYNC*
14M
SEROUT*
ØØ
R/W8Ø*
PRAS*
MD7
MD6
MD5
MD4
MD3
MD2
MD1
MDØ
CØ7X*
GR
FRCTXT*
CASEN*
AN3
ROMENI*
ROMEN2*
7M
3,58M
ALTVID*
ENVID*
R/W*
VID7
VID6
VID5
VID4
VID3
VID2
VID1
VIDØ
8ØVID*
EN8Ø*
RA7
RA6
RA5
RA4
RA3
RA2
RA1
RAØ
SEGA
SEGB
VC
RA9*
RAIØ*
CLRGAT*
VID7M
ENTMG*
+12
-5
VIDEO
GND
MOD. RF
J5
J17
D4
GND
DØ
D1
D3
D5
D6
D7
AN3
SW1
D2
STB
NC
RESET
SWO
+5V
TECLADO
INTELIGENTE
J8
TECLADO
X6
SHFT*
NC
X3
X1
X2
XØ
NC
Y5
Y4
Y3
Y2
Y1
Y7
Y6
X4
X5
X7
RESET*
GND
CNTL*
CAPLOCK*
SWØ/OAPL
SW1/CAPL
+5
YØ
FB2
FB3
FB1
FB4
FB5
+5PC
POWER
J 15
PDL1
PDL3
AN3
AN2
AN1
ANØ
PDL2
PDLØ
STB
SW2
SW1/CAPL
SWØ/OAPL
GAME

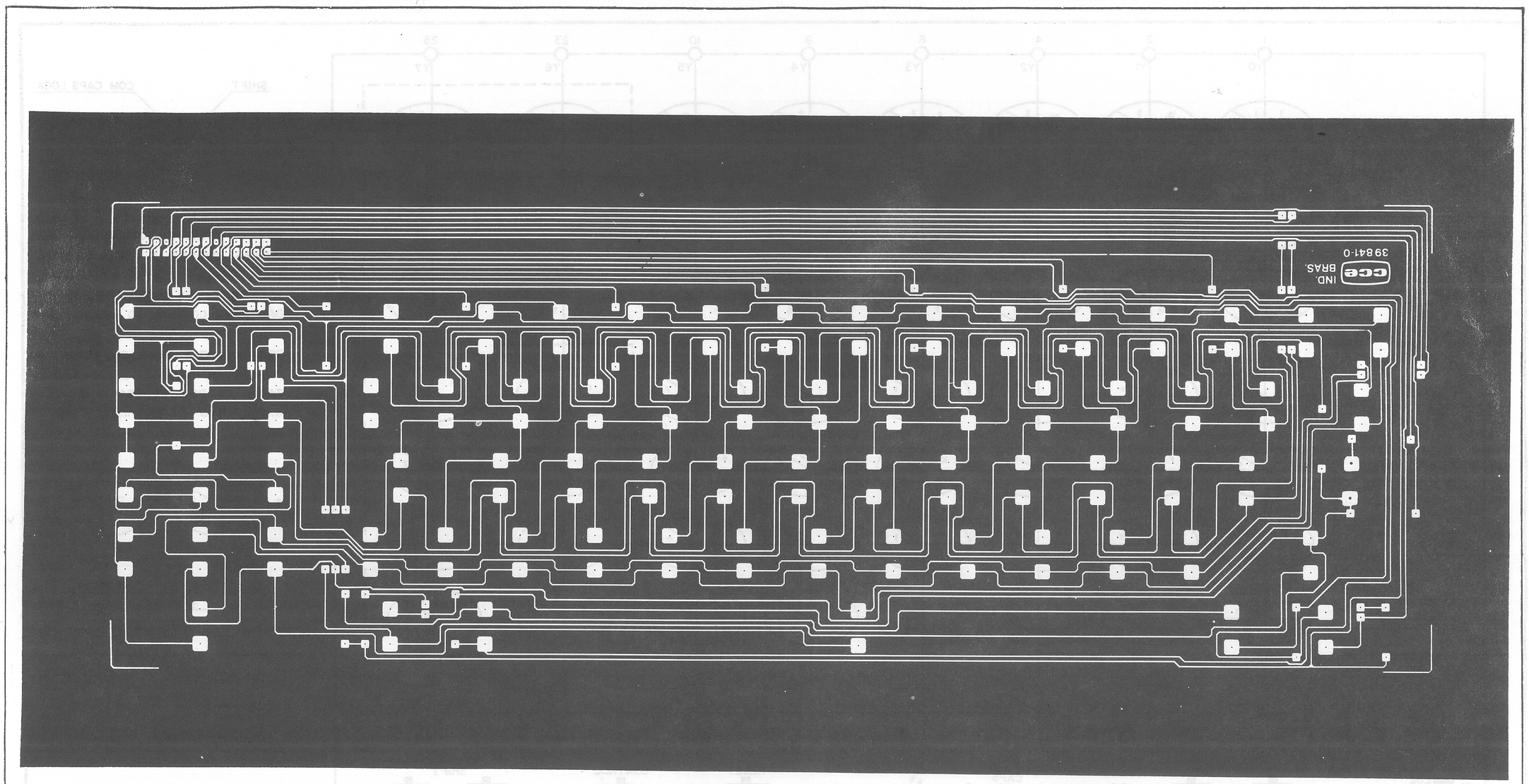

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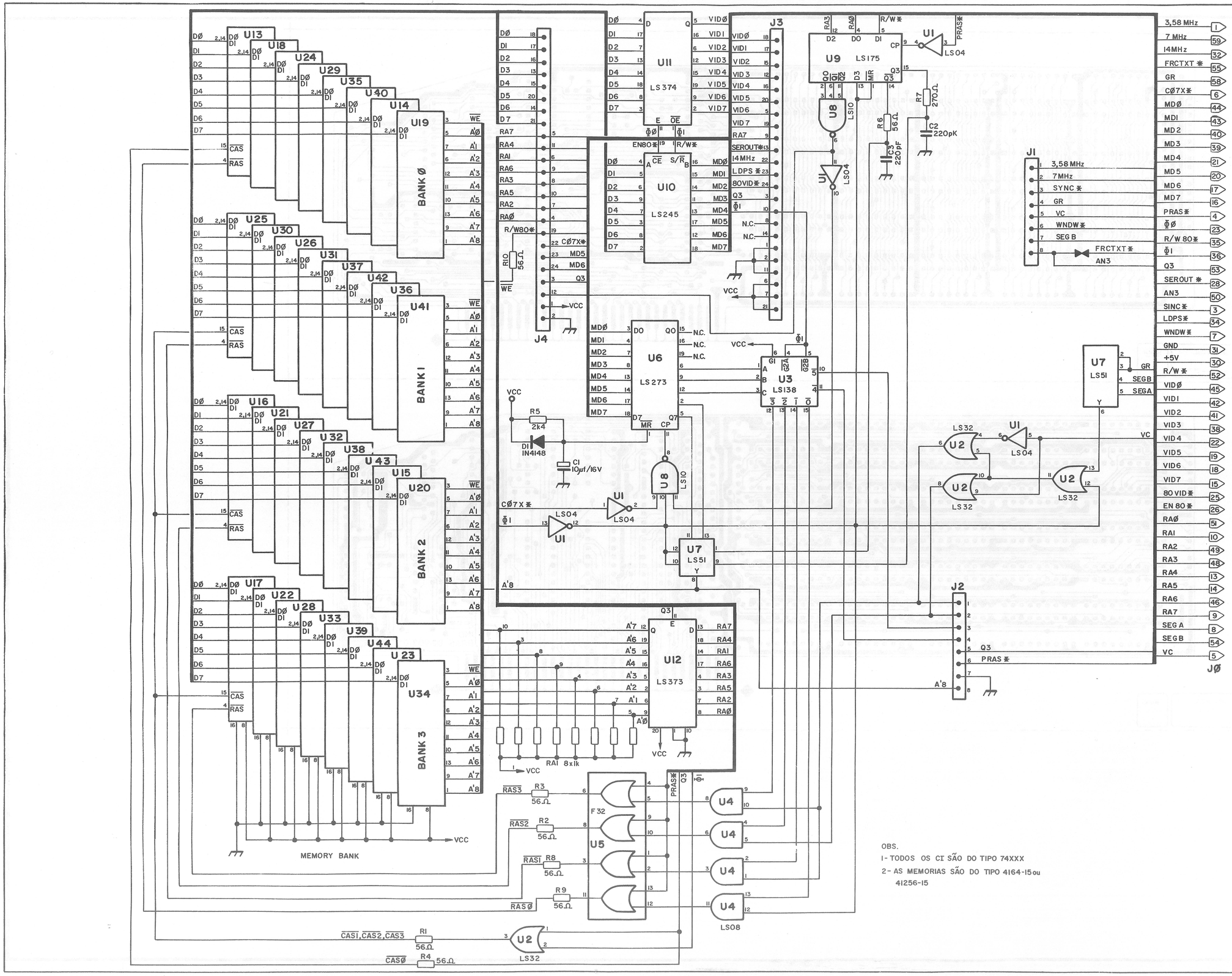


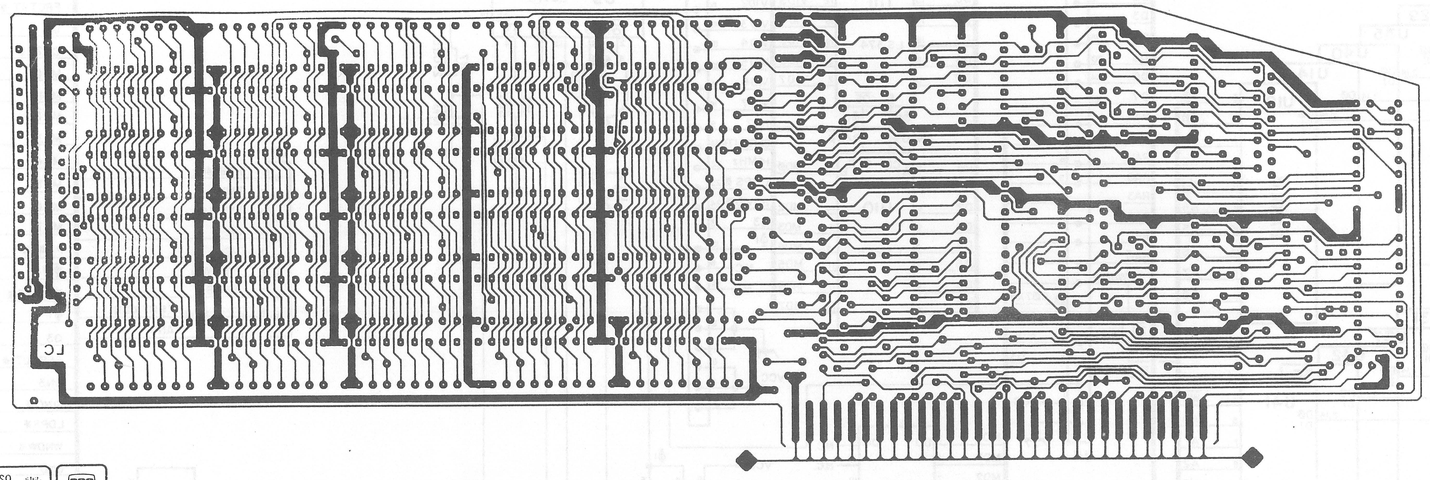


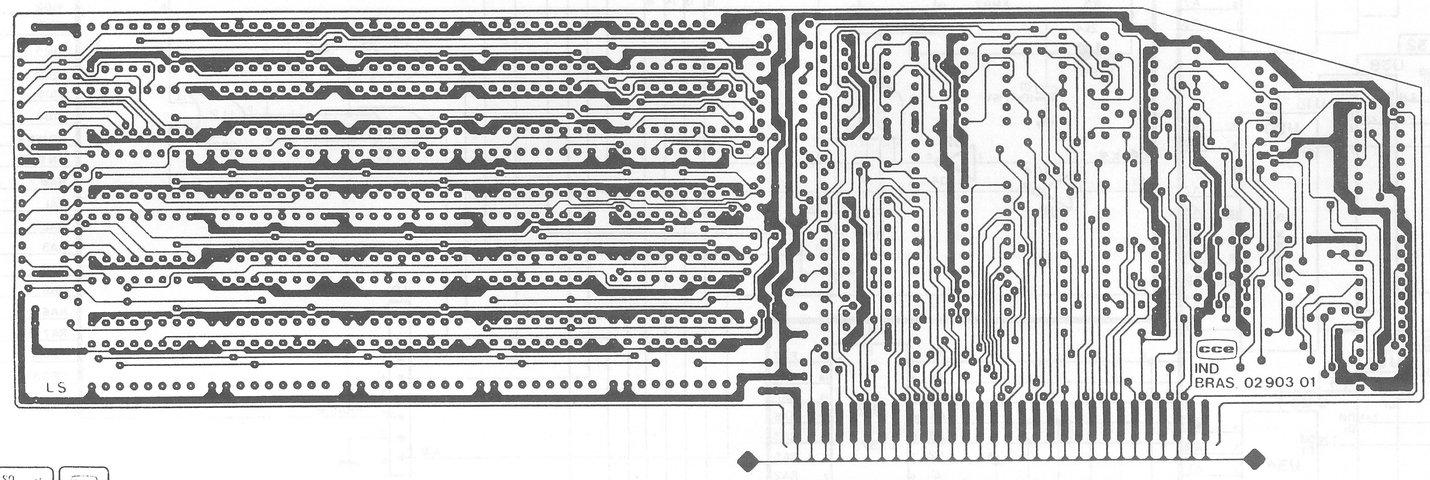
OBS. AS SETAS DIRECIONAIS SÃO ACIONADAS QUANDO A TECLA DE CAPS LOCK TRAVADA OU A TECLA DE CTRL PRESSIONADA, OU QUANDO PRESSIONADAS SHIFT CONTROL AO MESMO TEMPO.

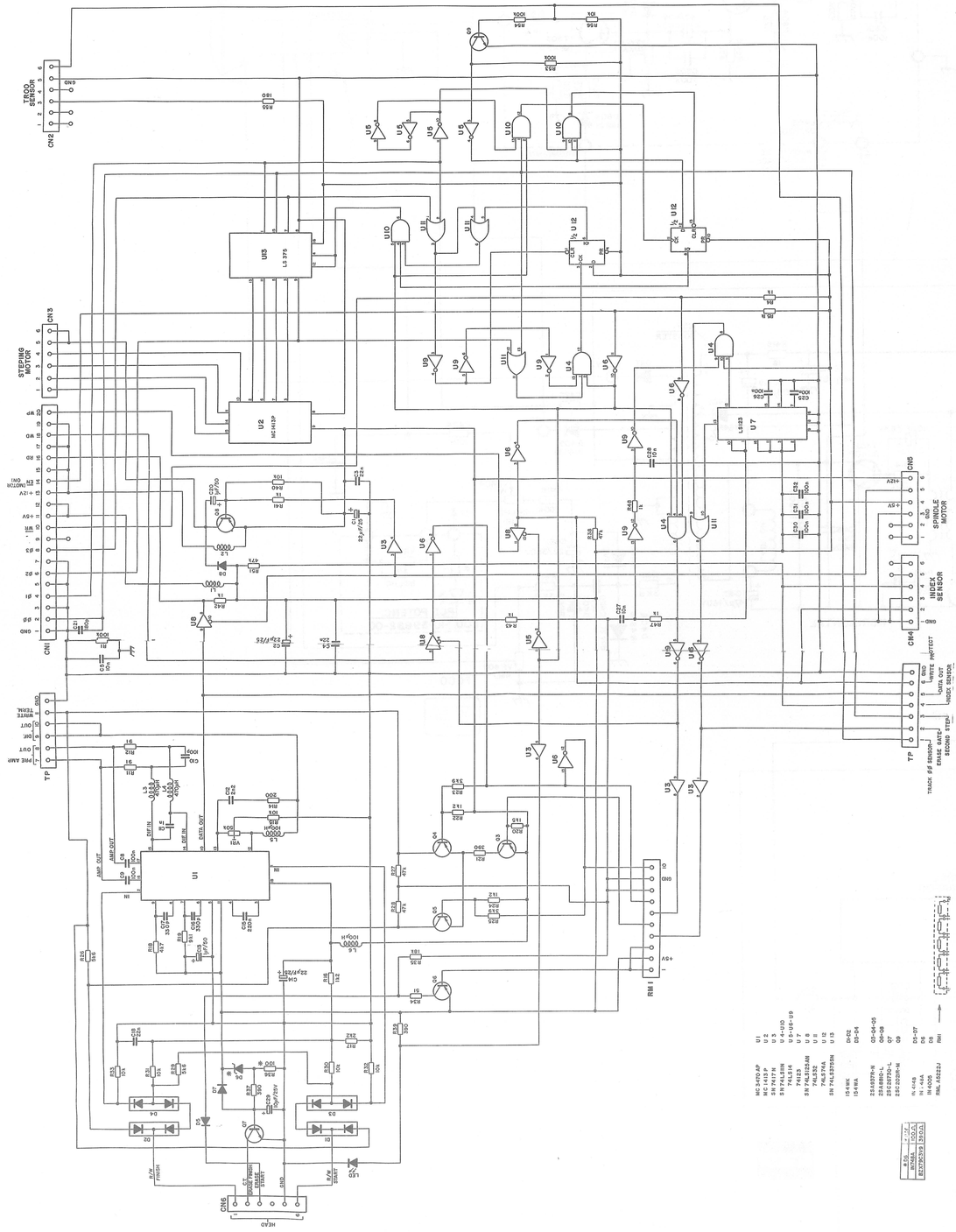
OBS. QUANDO A CHAVE CH1 ESTIVER NA POSIÇÃO NORMAL AS TECLAS LOCALIZADAS NA POSIÇÃO ABAIXO MENCIONADA, TERÃO OS SEGUINTES CARACTERES.

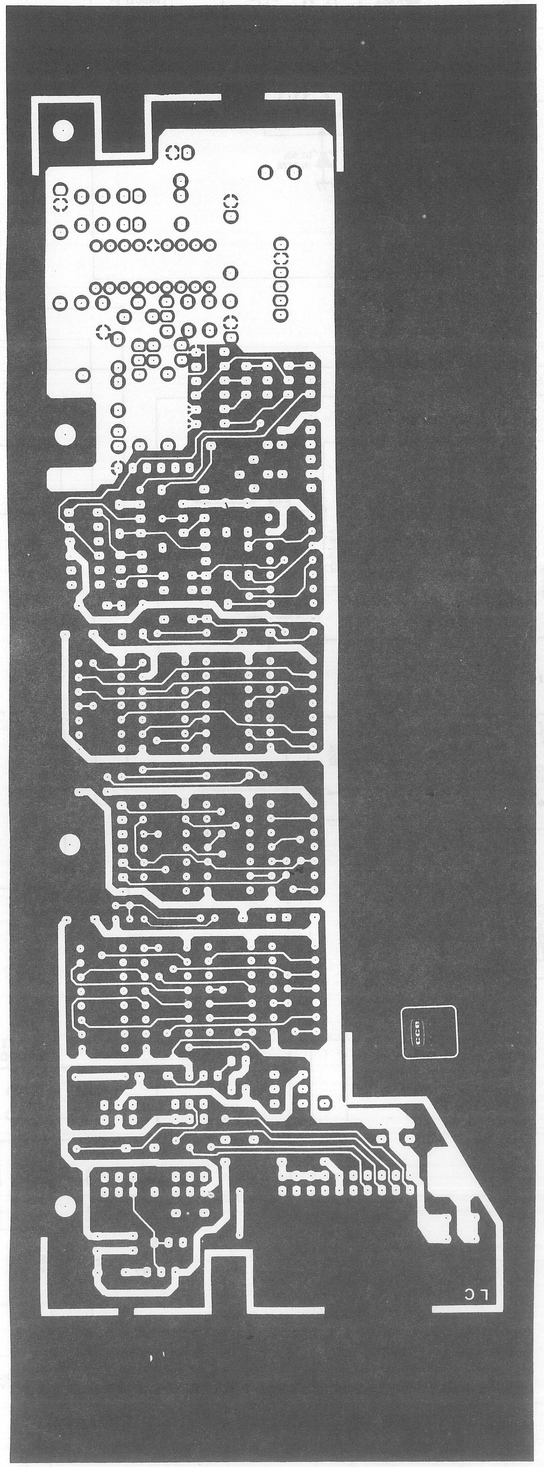

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IND.
BRAS.
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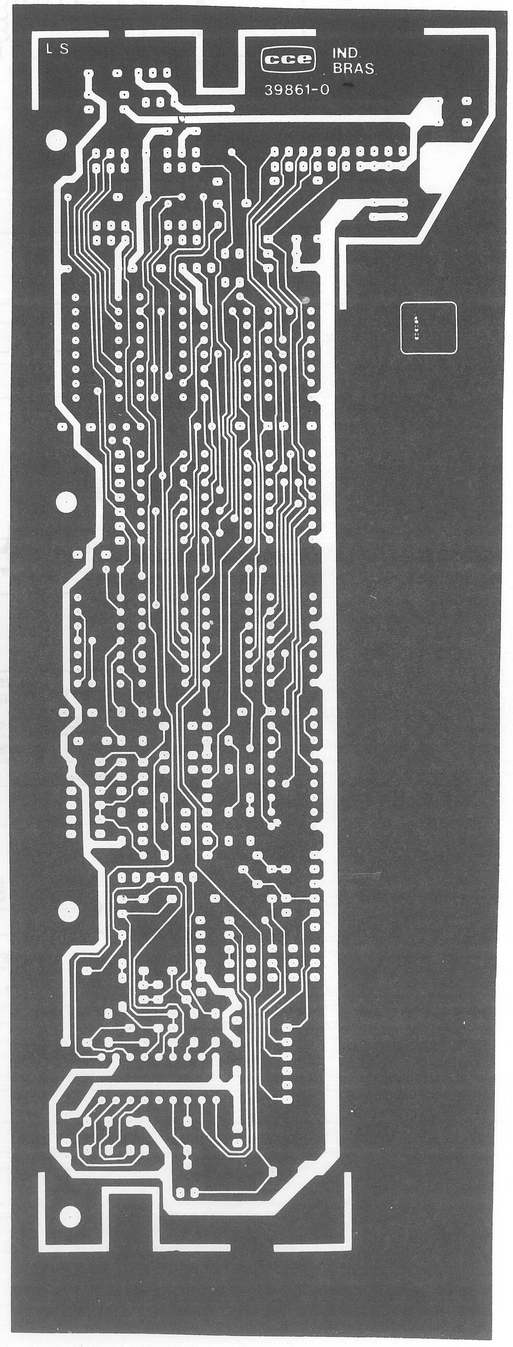

BANK Ø
BANK 1
BANK 2
BANK 3
MEMORY BANK
U11 LS374
U10 LS245
U6 LS273
U12 LS373
U9 LS175
U3 LS138
U5 F32
U7 LS51
U8 LS10
U1 LS04
U2 LS32
U4 LS08
J3
J4
J1
J2
J0
R10 56Ω
R5 2k4
R6 56Ω
R7 270Ω
C2 220pK
C3 220pF
C1 10µf/16V
DI IN4148
RAI 8x1k
R1 56Ω
R2 56Ω
R3 56Ω
R4 56Ω
R8 56Ω
R9 56Ω
3,58 MHz
7 MHz
14MHz
FRCTXT *
GR
CØ7X*
MDØ
MDI
MD2
MD3
MD4
MD5
MD6
MD7
PRAS*
ΦØ
R/W 80*
ΦI
Q3
SEROUT *
AN3
SINC*
LDPS*
WNDW*
GND
+5V
R/W*
SEGB
SEGA
VIDØ
VID1
VID2
VID3
VID4
VID5
VID6
VID7
80 VID*
EN 80*
RAØ
RAI
RA2
RA3
RA4
RA5
RA6
RA7
SEG A
SEG B
VC
VCC
OBS.
1- TODOS OS CI SÃO DO TIPO 74XXX
2- AS MEMORIAS SÃO DO TIPO 4164-15 ou 41256-15

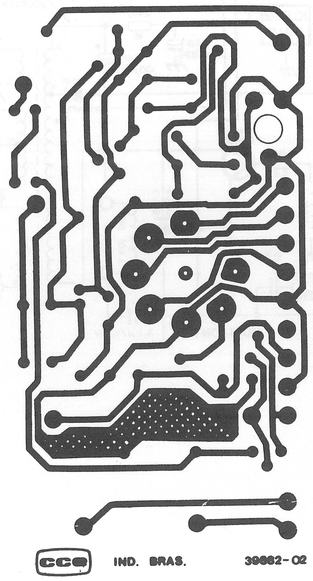

LC

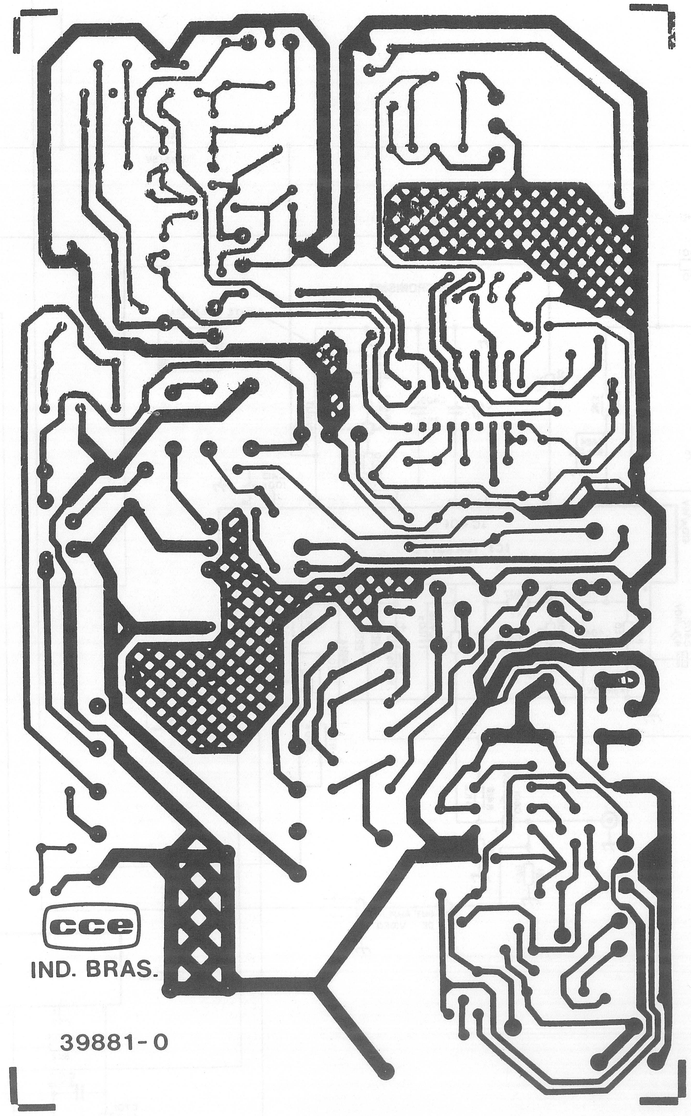

LS
cce
IND
BRAS 02903 01

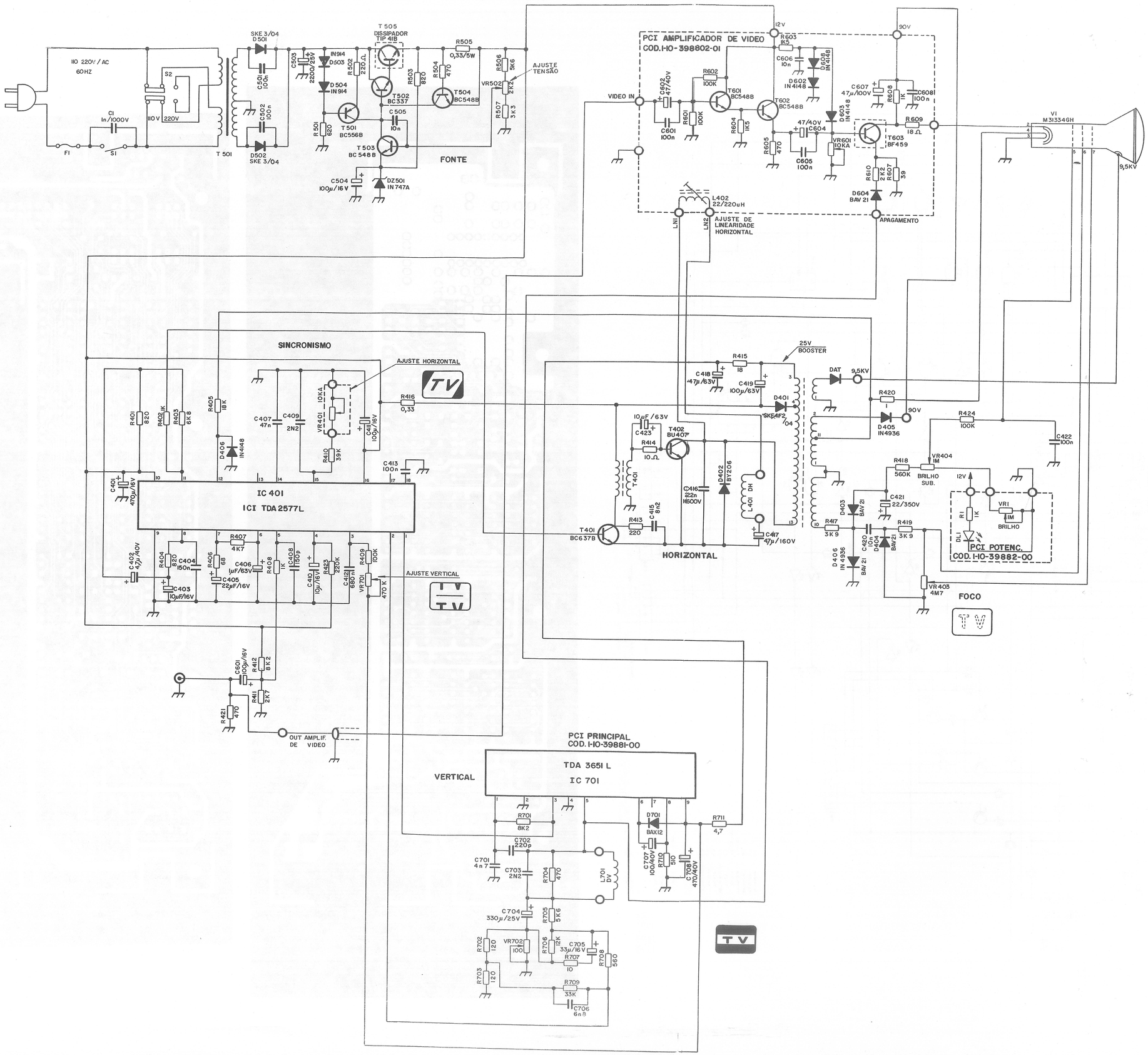

TRACK 00 SENSOR
WRITE PROTECT
DATA OUT
INDEX SENSOR
ERASE GATE
SECOND STEP
STEPING MOTOR
HEAD
U1
U2
U3
U 4-U10
U 9-U6-U9
U 7
U 8
U 12
U 13
D1-D2
D3-D4
Q5-Q6-Q8
Q6-Q8
Q7
Q9
D5-D7
D6
D8
RM1
INDEX SENSOR
STEPING MOTOR

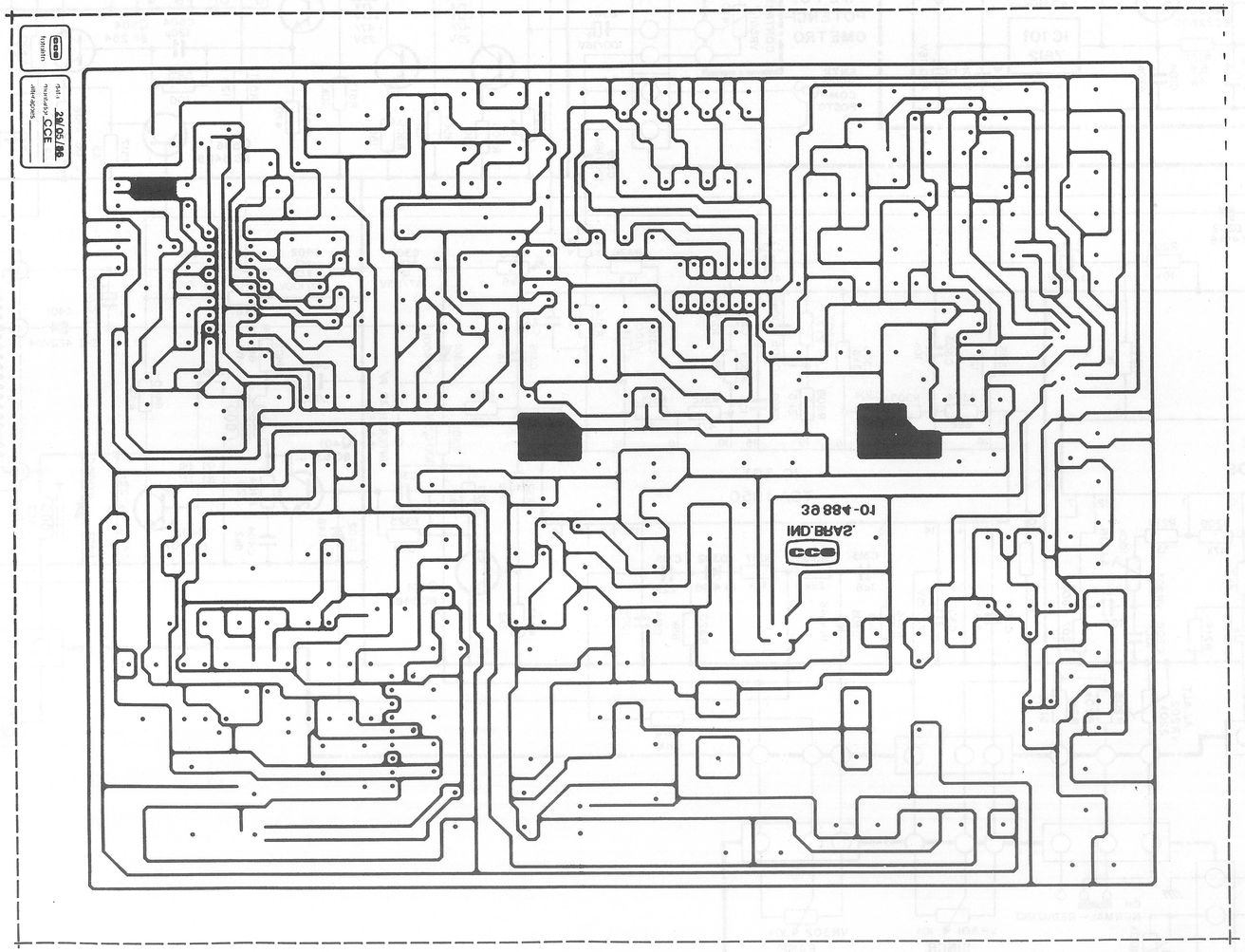


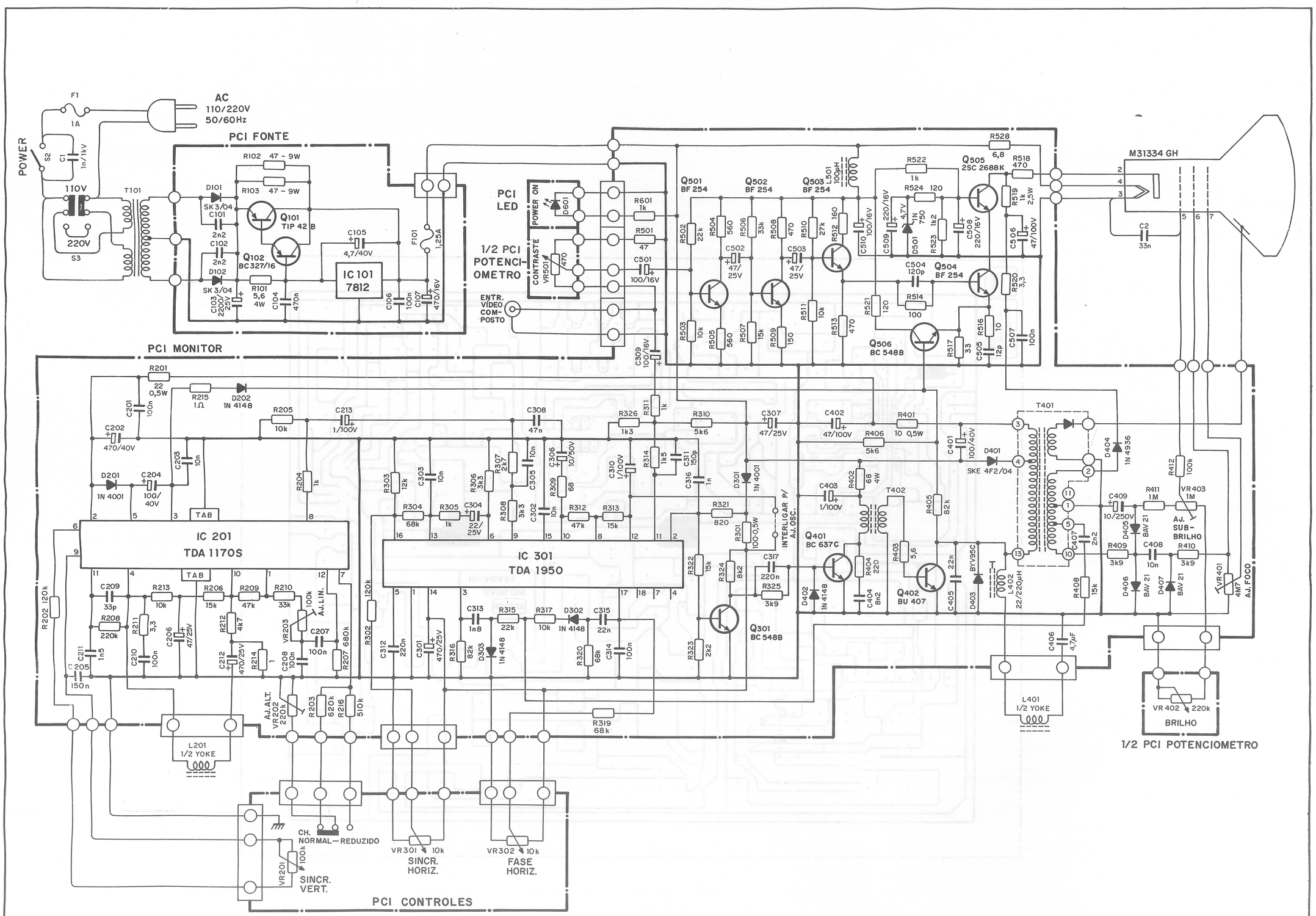

L S
cce
IND.
BRAS.
39861-0

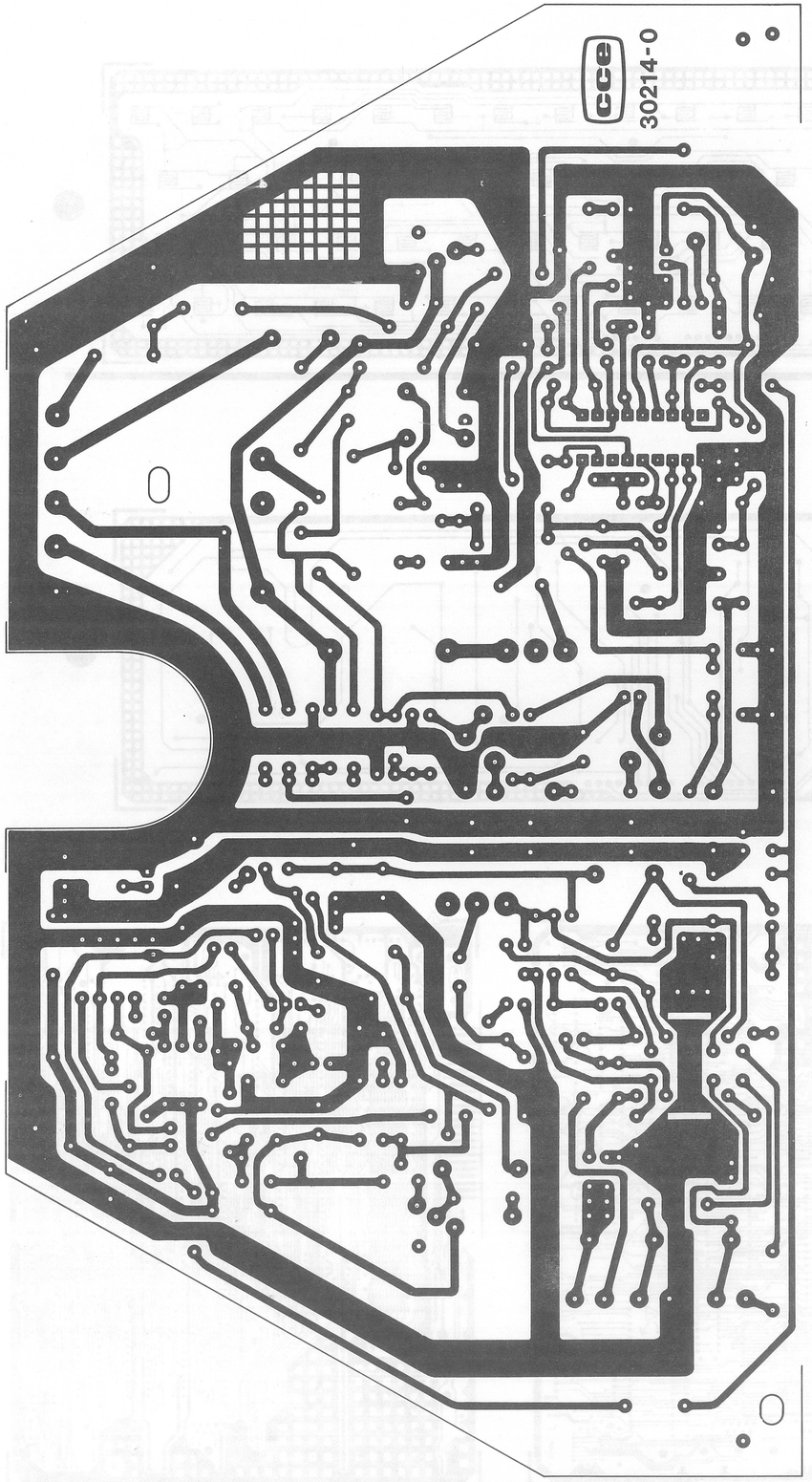

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IND. BRAS.
39882-02

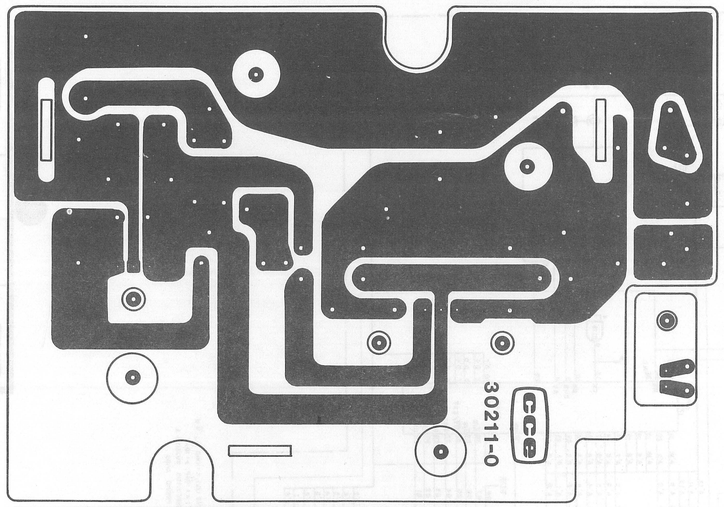

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IND. BRAS.
39881-0

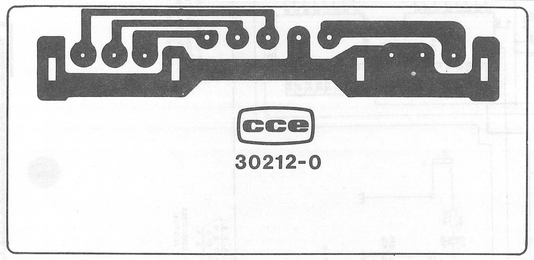

110 220V / AC
60HZ
S2
110V 220V
C1
In/1000V
F1
S1
T 501
SKE 3/04
D501
C501 100n
C502 100n
D502
SKE 3/04
C503
220/25V
IN914
D503
D504
IN 914
R502
220Ω
T 505
DISSIPADOR
TIP 41B
T502
BC337
R503
820
R504
470
T504
BC548B
R505
0,33/5W
R506
5K6
AJUSTE
TENSÃO
VR502
2K2
R507
5K3
R501
620
T501
BC556B
C505
10n
T 503
BC 548 B
FONTE
C504
100µ/16V
DZ501
IN 747A
PCI AMPLIFICADOR DE VIDEO
COD.IHO-398802-01
12V
90V
VIDEO IN
C602
47/40V
C601
100n
R601
100K
T601
BC548B
R602
100K
T602
BC548B
R604
1K5
R605
470
C605
100n
47/40V
C604
VR601
10KA
D603
IN4148
D602
IN 4148
C606
10n
D608
IN4148
C607
47µ/100V
R608
1K
C608
100n
R609
18Ω
T603
BF459
R610
2K7
R607
39
D604
BAV 21
L402
22/220uH
LN1
LN2
AJUSTE DE
LINEARIDADE
HORIZONTAL
APAGAMENTO
V1
M31334GH
9,5KV
SINCRONISMO
AJUSTE HORIZONTAL
TV
R401
820
R402 1K
R403
6K8
R405
18K
D406
IN4148
C407
47n
C409
2N2
VR401
10KA
R410
39K
C411
100µ/16V
R416
0,33
C413
100n
C401
470µ/16V
IC 401
ICI TDA2577L
R407
4K7
C402
4,µ/40V
R404
820
C404
150n
R406
68
C406
µF/63V
C405
22µF/16V
R408
1K
C408
1150p
C410
10µ/16V
R423
220K
C412
680 nl
R409
100K
VR701
470 K
AJUSTE VERTICAL
C601
100µ/16V
R412
8K2
R411
2K7
R421
470
OUT AMPLIF.
DE VIDEO
R415
18
25V
BOOSTER
C418
47µ/63V
C419
100µ/63V
D401
SKE4F2
/04
DAT
9,5KV
R420
90V
D405
IN4936
R424
100K
C422
100n
10µF/63V
C423
T402
BU407
R414
10Ω
T401
BC637B
C415
8n2
R413
220
C416
22n
1600V
D402
BY206
DH
L401
C417
47µ/160V
HORIZONTAL
R418
560K
VR404
1M
BRILHO
SUB.
C421
22/350V
D403
BAV 21
R417
3K9
C420
10n
D404
BAV21
R419
3K9
D406
IN 4936
BAV 21
VR403
4M7
FOCO
12V
R1
1K
VR1
1M
BRILHO
DLI
PCI POTENC.
COD. I-IO-39882-00
PCI PRINCIPAL
COD. I-IO-39881-00
VERTICAL
TDA 3651 L
IC 701
R701
8K2
D701
BAX12
R711
4,7
C702
220p
C701
4n7
C703
2N2
R704
470
L701
LV
C704
330µ/25V
R705
5K6
C707
100/40V
R710
510
C708
470/40V
R702
120
VR702
100
R706
12K
C705
33µ/16V
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10
R708
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R703
120
R709
33K
C706
6n8

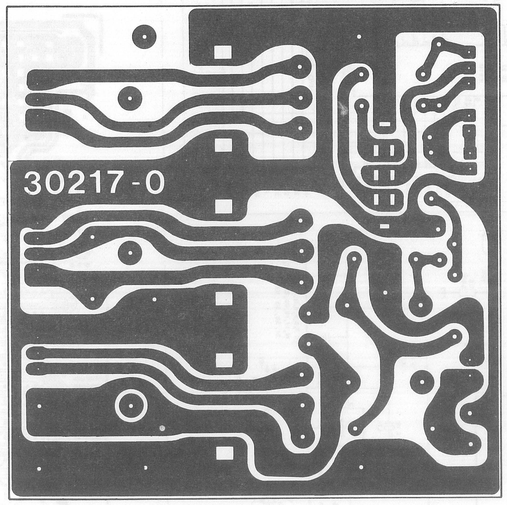

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10-4886

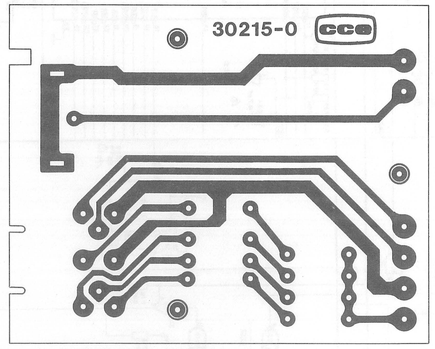

AC
110/220V
50/60Hz
F1
1A
POWER
S2
C1
1n/1kV
110V
220V
S3
T101
PCI FONTE
D101
SK 3/04
C101
2n2
C102
2n2
D102
SK 3/04
C103
2200/
25V
R102 47 - 9W
R103 47 - 9W
Q101
TIP 42 B
Q102
BC327/16
R101
5,6
4W
C104
470n
C105
4,7/40V
IC 101
7812
C106
100n
C107
470/16V
F101
1,25A
PCI
LED
POWER ON
D601
1/2 PCI
POTENCI-
OMETRO
CONTRASTE
VR501
470
ENTR.
VÍDEO
COM-
POSTO
R601
1k
R501
47
C501
100/16V
C309
100/16V
Q501
BF 254
Q502
BF 254
Q503
BF 254
R502
22k
R504
560
R506
33k
R508
470
R510
27k
R512
160
L501
100µH
C502
47/
25V
C503
47/
25V
R503
10k
R505
560
R507
15k
R509
150
R511
10k
R513
470
C510
100/16V
R522
1k
R524
120
C509
220/16V
4,7V
D501
1N
750
R523
1k2
C508
220/16V
Q505
2SC 2688K
R528
6,8
R518
470
R519
1k
2,5W
C506
47/100V
M31334 GH
C2
33n
C504
120p
Q504
BF 254
R514
100
R521
120
R520
3,3
Q506
BC 548B
R516
10
R517
33
C505
12p
C507
100n
PCI MONITOR
R201
22
0,5W
R215
1Ω
D202
1N 4148
C201
100n
C202
470/40V
D201
1N 4001
C204
100/
40V
C203
10n
TAB
R204
1k
R205
10k
C213
1/100V
C308
47n
R326
1k3
R311
1k
R310
5k6
C307
47/25V
C402
47/100V
R406
5k6
R401
10 0,5W
T401
C401
100/40V
D401
SKE 4F2/04
D404
1N 4936
R412
100k
R303
12k
C303
10n
R306
3k3
R307
2k7
C305
10n
C306
10/50V
R309
68
R314
1k5
C311
150p
C310
1/100V
C316
1n
D301
1N 4001
R304
68k
R305
1k
C304
22/
25V
C302
10n
R308
3k3
R312
47k
R313
15k
R321
820
R301
100-0,5W
INTERLIGAR P/
AJ. OSC.
C403
1/100V
R402
68
4W
T402
R405
82k
Q401
BC 637C
R403
5,6
R404
220
C404
8n2
Q402
BU 407
C405
22n
BYV95C
D403
L402
22/220µH
D402
1N 4148
C317
220n
R325
3k9
R408
15k
C409
10/250V
R411
1M
VR403
1M
AJ.
SUB-
BRILHO
C407
2n2
D405
BAV 21
D406
BAV 21
D407
BAV 21
R409
3k9
C408
10n
R410
3k9
VR401
4M7
AJ. FOCO
IC 201
TDA 1170S
IC 301
TDA 1950
R202 120k
C209
33p
R213
10k
R206
15k
R209
47k
R210
33k
100k
AJ. LIN.
R208
220k
R211
3,3
C206
47/25V
R212
4k7
VR203
C207
100n
C210
100n
C211
1n5
C212
470/25V
R214
1
C208
100n
R207
680k
C205
150n
R302
120k
C312
220n
C301
470/25V
C313
1n8
R315
22k
R317
10k
D302
1N 4148
C315
22n
R316
82k
D303
1N 4148
R320
68k
C314
100n
R323
2k2
Q301
BC 548B
C406
4,7µF
AJ. ALT.
VR202
220k
R203
620k
R216
510k
R319
68k
L201
1/2 YOKE
L401
1/2 YOKE
VR 402
220k
BRILHO
1/2 PCI POTENCIOMETRO
CH.
NORMAL—REDUZIDO
VR201
100k
SINCR.
VERT.
VR301
10k
SINCR.
HORIZ.
VR302
10k
FASE
HORIZ.
PCI CONTROLES

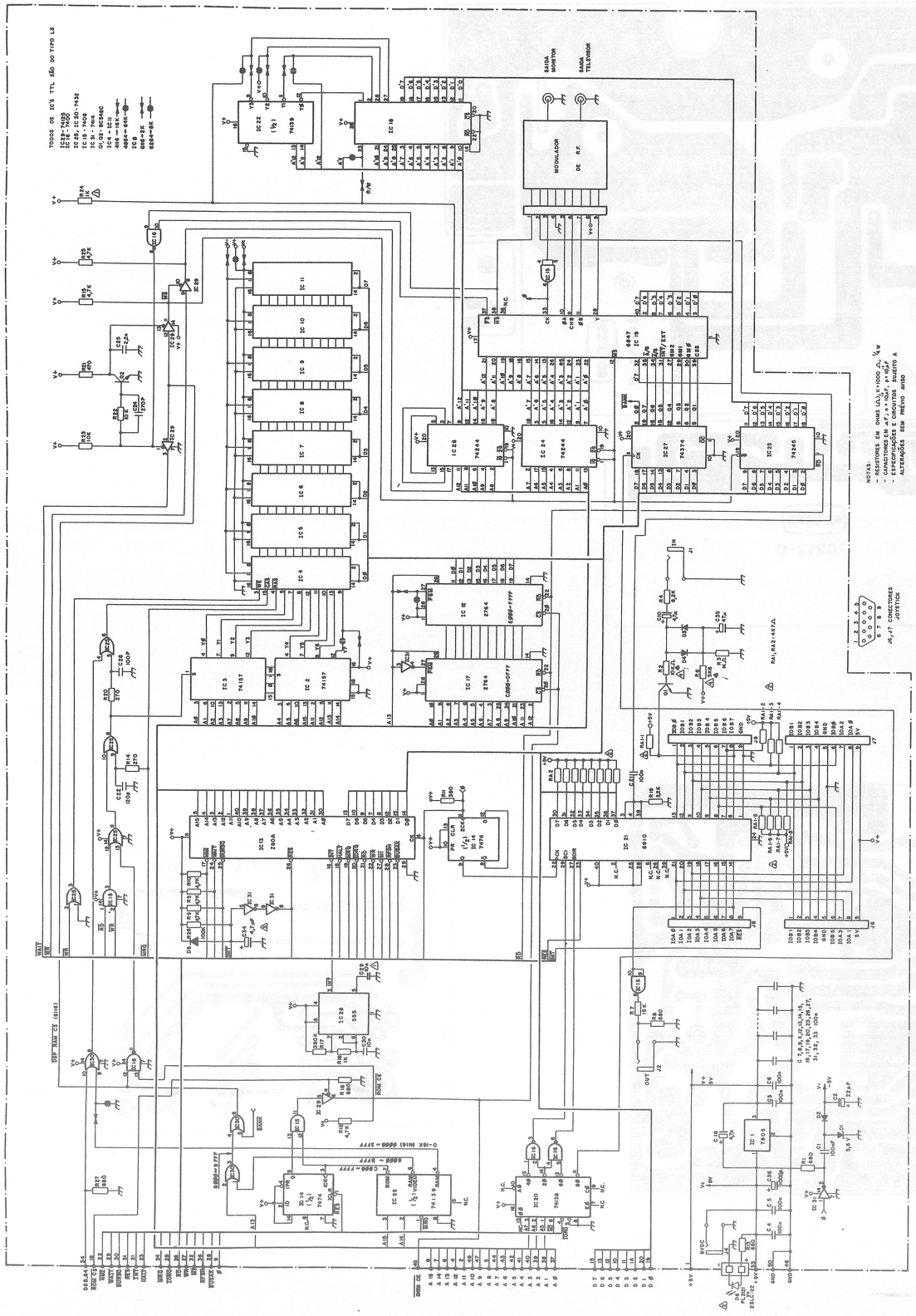

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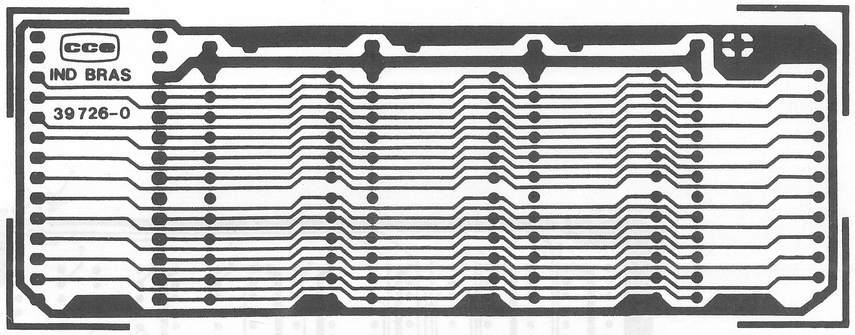

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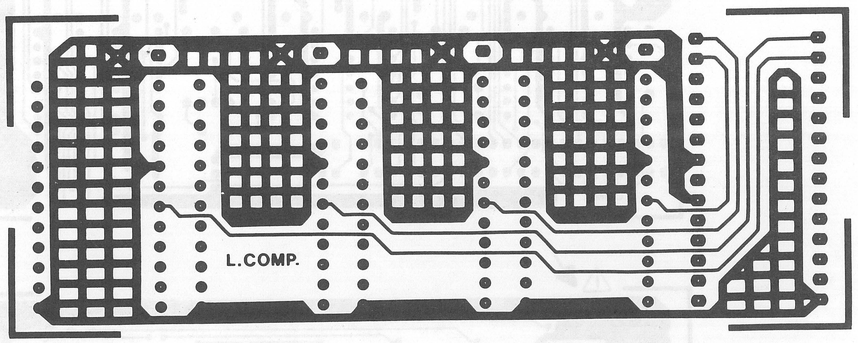

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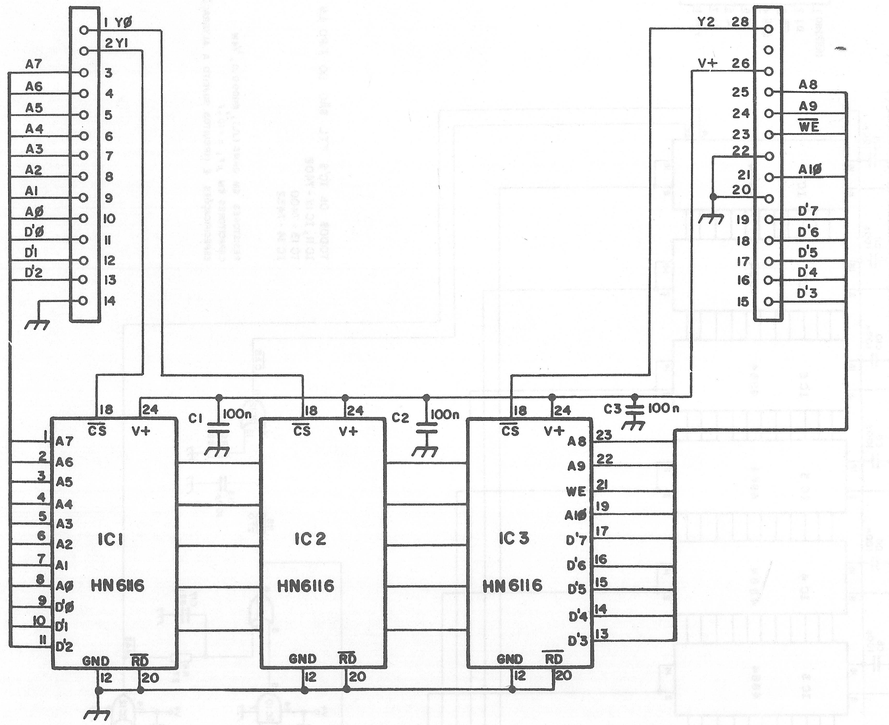

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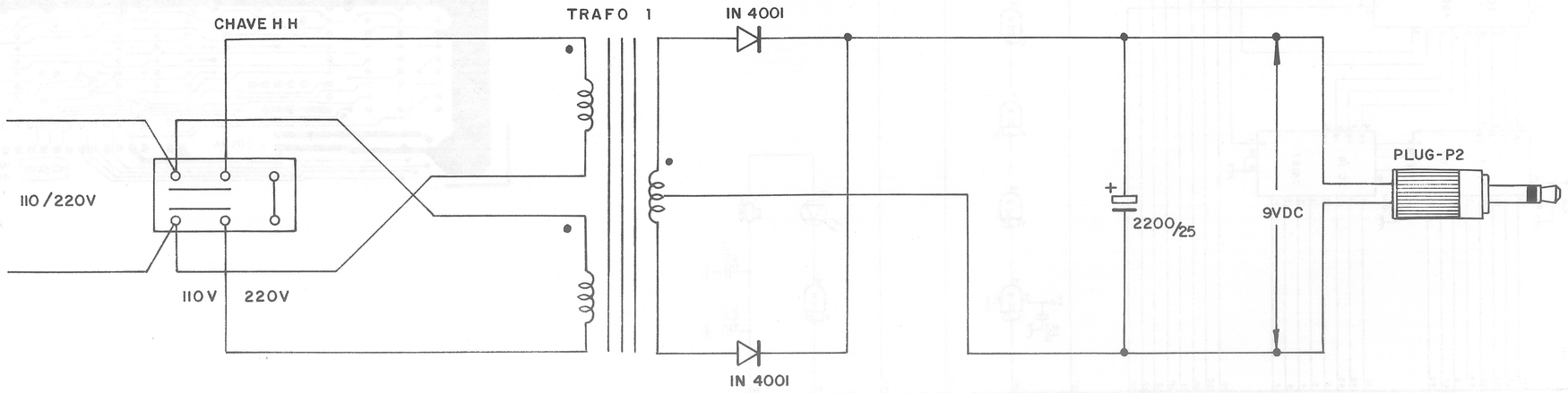

30215-0
cce


TODOS OS ICS TTL SÃO DO TIPO LS
IC 22 (½) 74139
IC 18
MODULADOR DE R.F.
SAIDA MONITOR
SAIDA TELEVISOR
IC 11
IC 10
IC 9
IC 8
IC 7
IC 6
IC 5
IC 4
IC 3 74157
IC 2 74157
IC 12 2764 E000-FFFF
IC 17 2764 C000-DFFF
IC 26 74244
IC 24 74244
IC 27 74374
IC 23 74245
IC 13 2408
IC 14 74174
IC 21 6810
IC 19 6847
IC 28 555
IC 22 74139
IC 1 7805
IC 31 BC548
IC 29
IC 30
IC 15
IC 16
IC 20 74LS30
IC 18
IC 25
IC 32
IC 33
IC 34
IC 35
IC 36
IC 37
IC 38
IC 39
IC 40
IC 41
IC 42
IC 43
IC 44
IC 45
IC 46
IC 47
IC 48
IC 49
IC 50
IC 51
IC

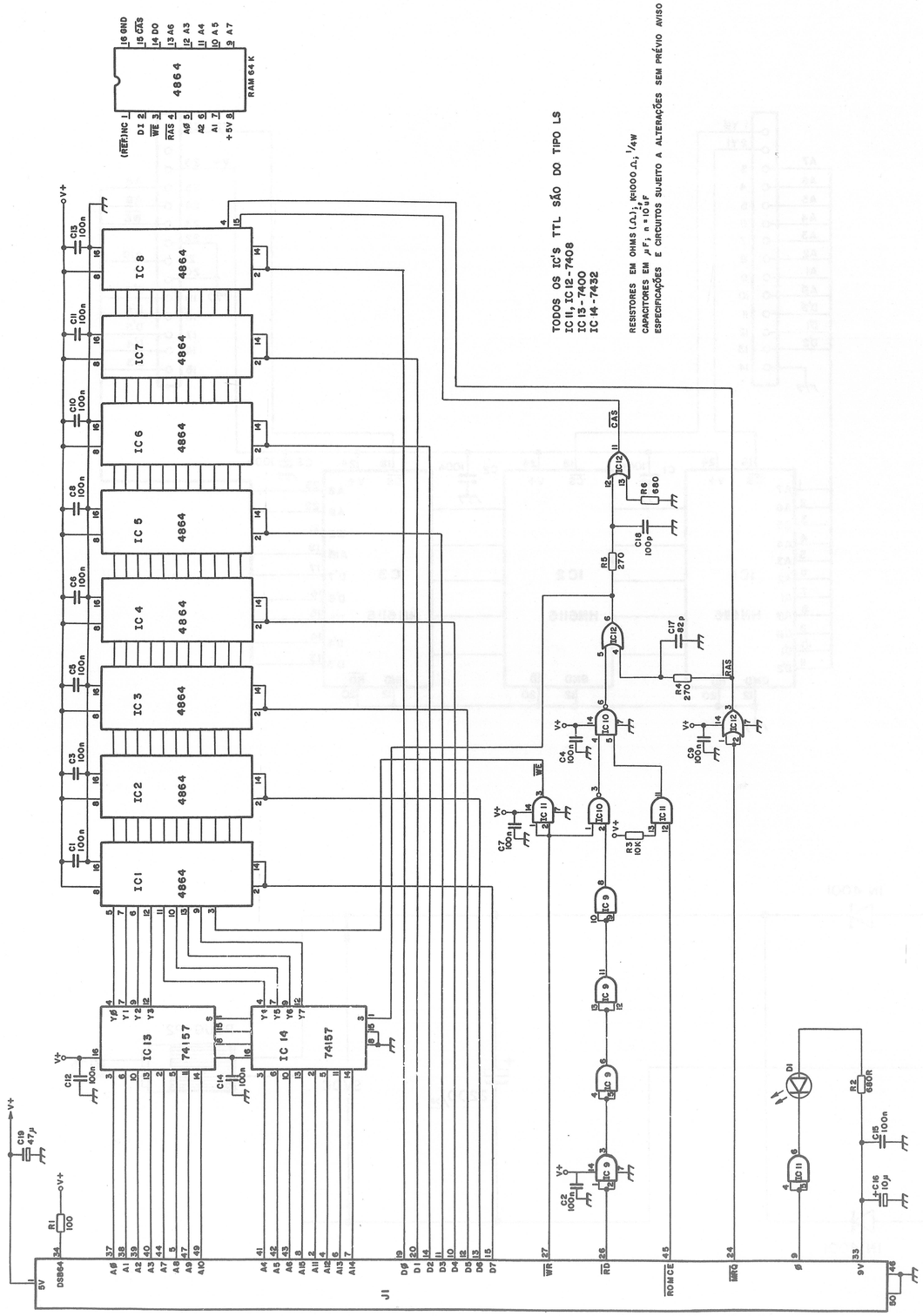

IND BRAS
39726-0

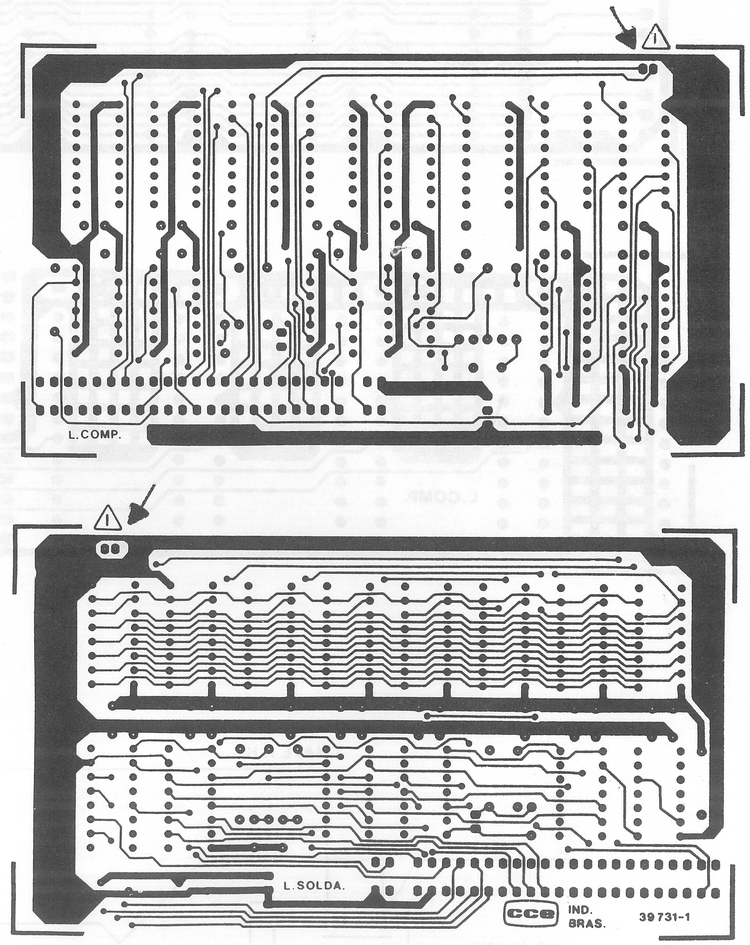

L.COMP.

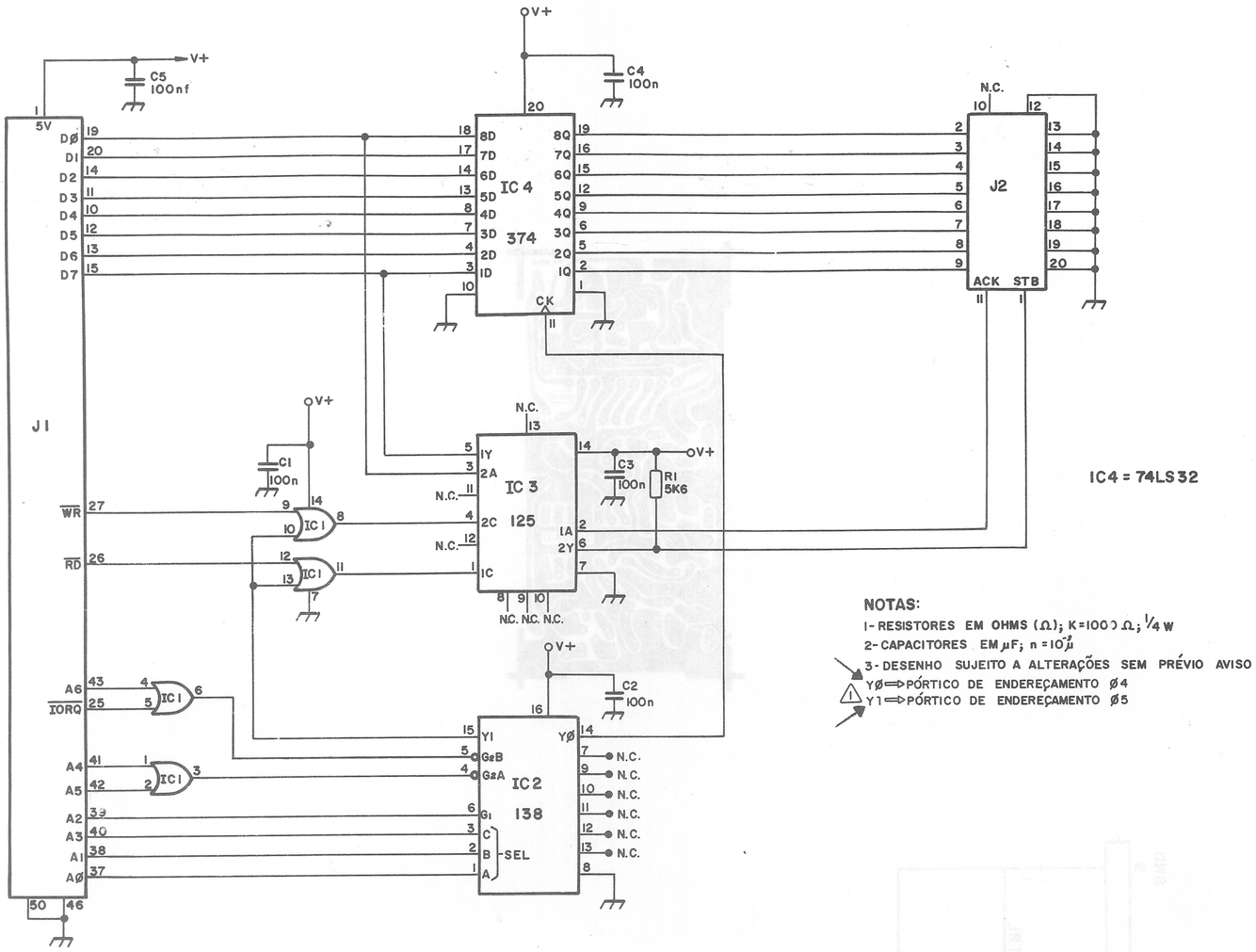

1 YØ
2 Y1
A7
A6
A5
A4
A3
A2
A1
AØ
D'Ø
D'1
D'2
Y2 28
V+ 26
A8
A9
WE
A1Ø
D'7
D'6
D'5
D'4
D'3
C1 100n
C2 100n
C3 100n
CS
V+
IC1
IC2
IC3
HN6116
GND
RD


CHAVE H H
TRAFO 1
IN 4001
IN 4001
110/220V
110V
220V
2200/25
9VDC
PLUG-P2

1000


TODOS OS IC'S TTL SÃO DO TIPO LS
IC 11, IC 12 - 7408
IC 13 - 7400
IC 14 - 7432
RESISTORES EM OHMS (Ω); K=1000 Ω; 1/4W
CAPACITORES EM µF; n = 10⁻⁹F
ESPECIFICAÇÕES E CIRCUITOS SUJEITO A ALTERAÇÕES SEM PRÉVIO AVISO
RAM 64 K
4864
74157
DS864
J1


L.COMP.
L.SOLDA.
CCE
IND. BRAS.
39731-1



IC4 = 74LS32

NOTAS:

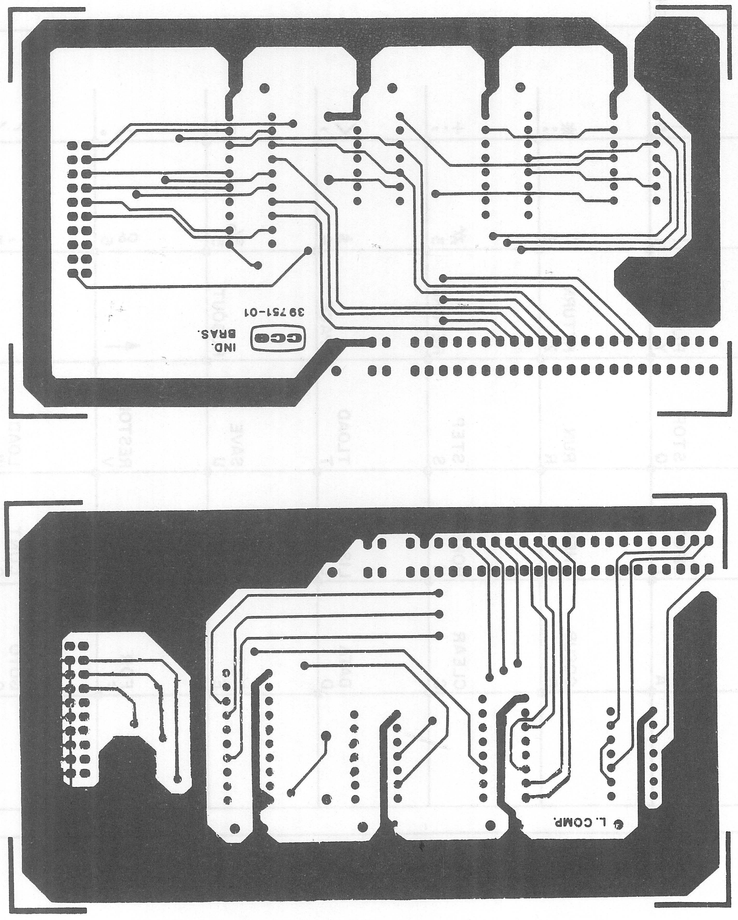
1- RESISTORES EM OHMS (Ω); K=1000 Ω; 1/4 W

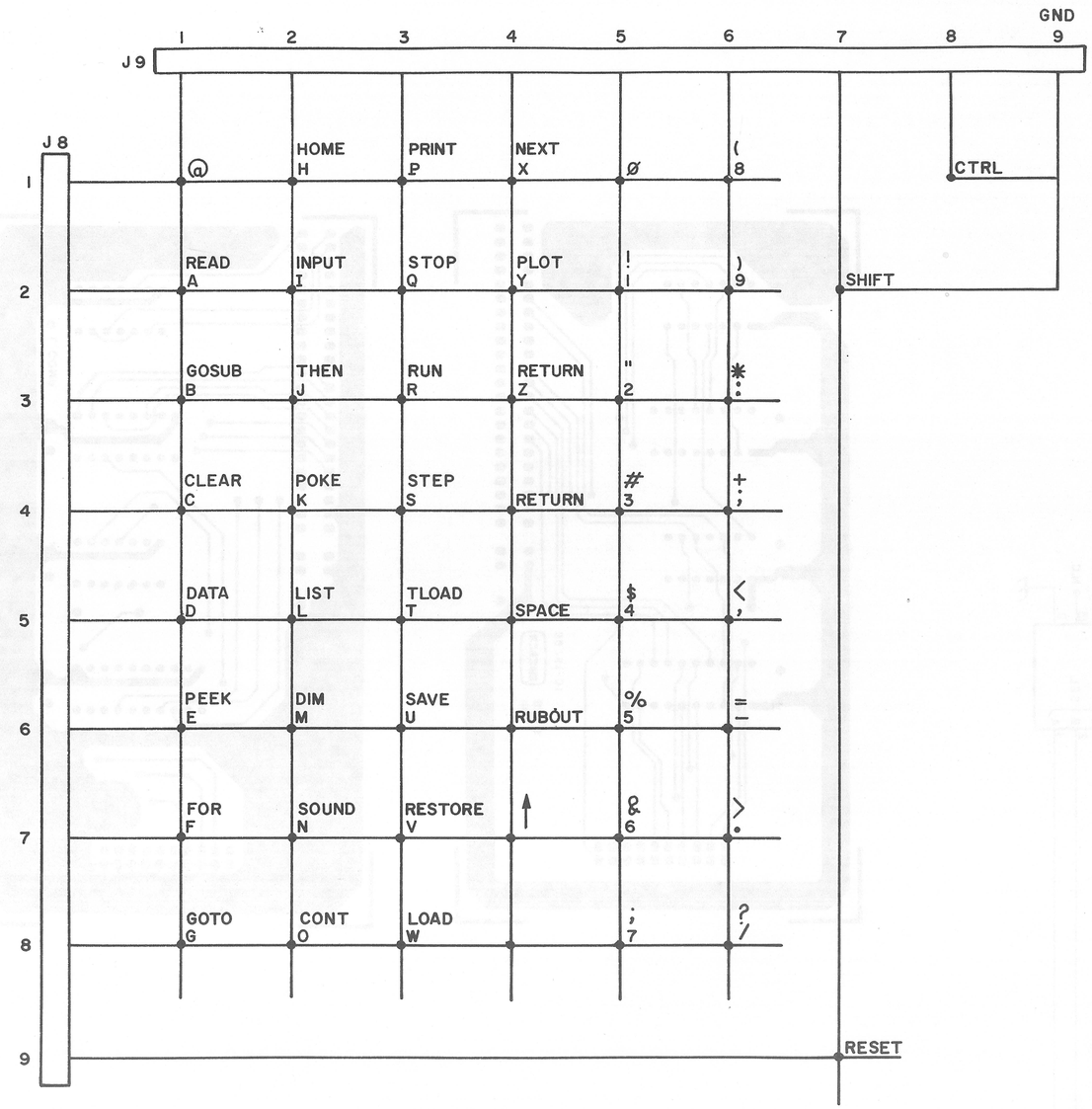
2- CAPACITORES EM μF; n = 10⁻⁶ μ

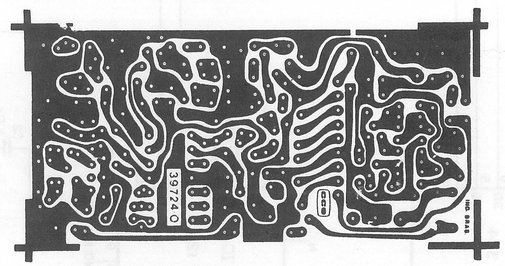
3- DESENHO SUJEITO A ALTERAÇÕES SEM PRÉVIO AVISO

Y0 ⇒ PÓRTICO DE ENDEREÇAMENTO Ø4

Y1 ⇒ PÓRTICO DE ENDEREÇAMENTO Ø5




J9
1 2 3 4 5 6 7 8 9
GND
J8
1
2
3
4
5
6
7
8
9
@
HOME H
PRINT P
NEXT X
Ø
(8
CTRL
READ A
INPUT I
STOP Q
PLOT Y
! 1
) 9
SHIFT
GOSUB B
THEN J
RUN R
RETURN Z
" 2
* :
CLEAR C
POKE K
STEP S
RETURN
3
+ ;
DATA D
LIST L
TLOAD T
SPACE
$ 4
< ,
PEEK E
DIM M
SAVE U
RUBOUT
% 5
= -
FOR F
SOUND N
RESTORE V
↑
& 6
> .
GOTO G
CONT O
LOAD W
; 7
? /
RESET

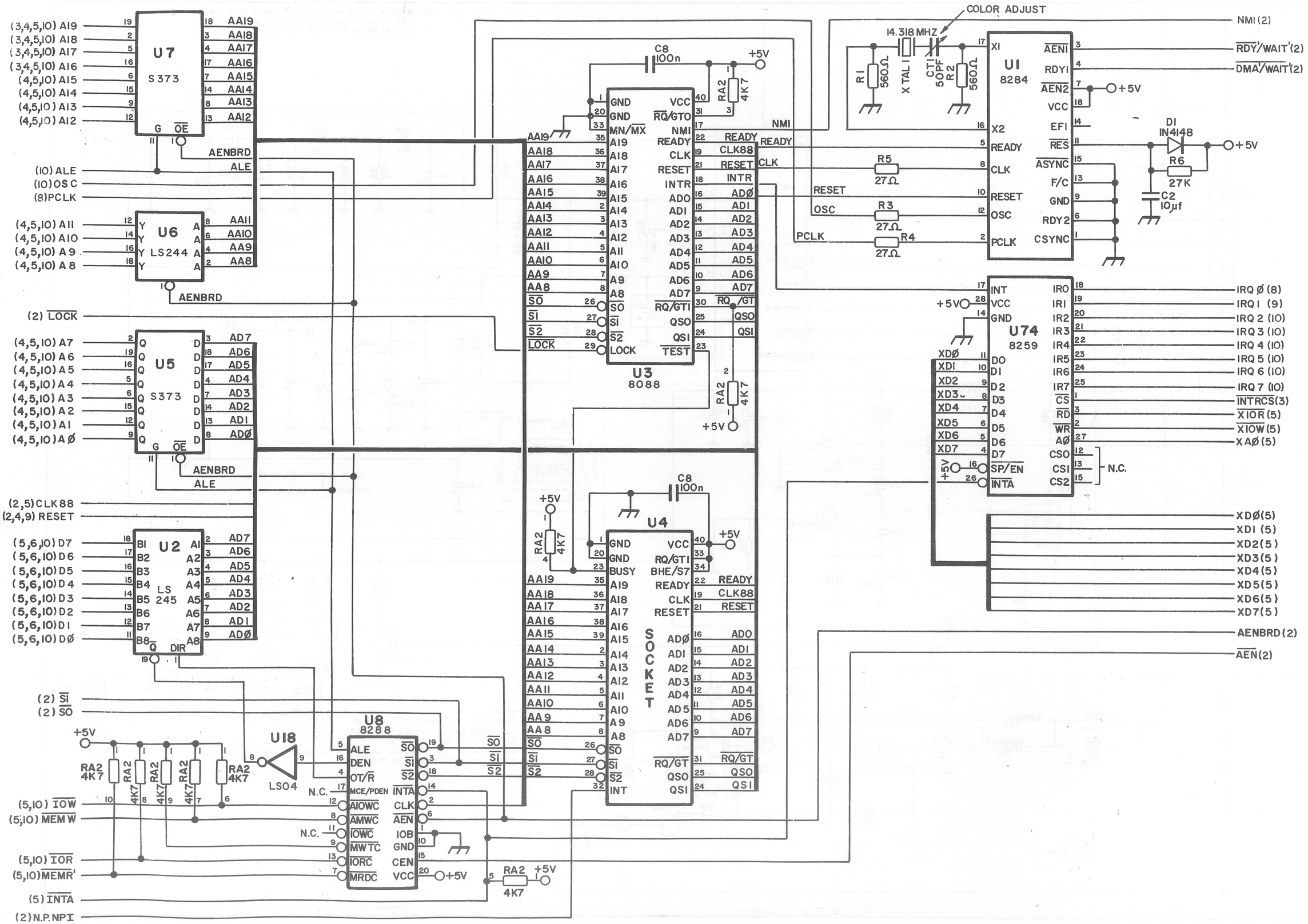

397240

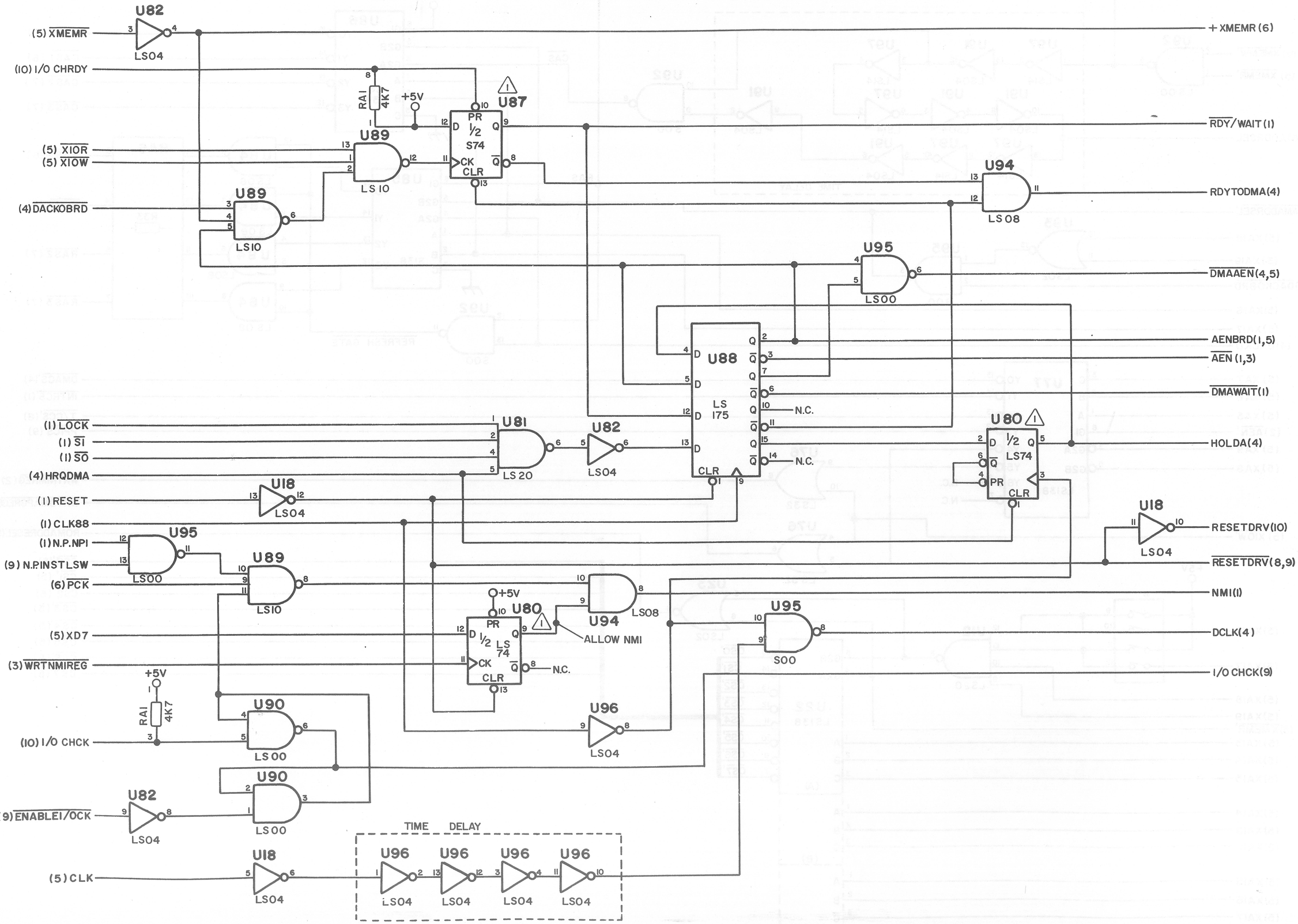
OBS: * CT 101; CT 104; VR 102; C120 COLOCADOS PELO LADO COBREADO
R135 SAI DO PCI PARA PLUG RCA (MONITOR)
R133 SAI DO PCI PARA PLUG RCA (TV)

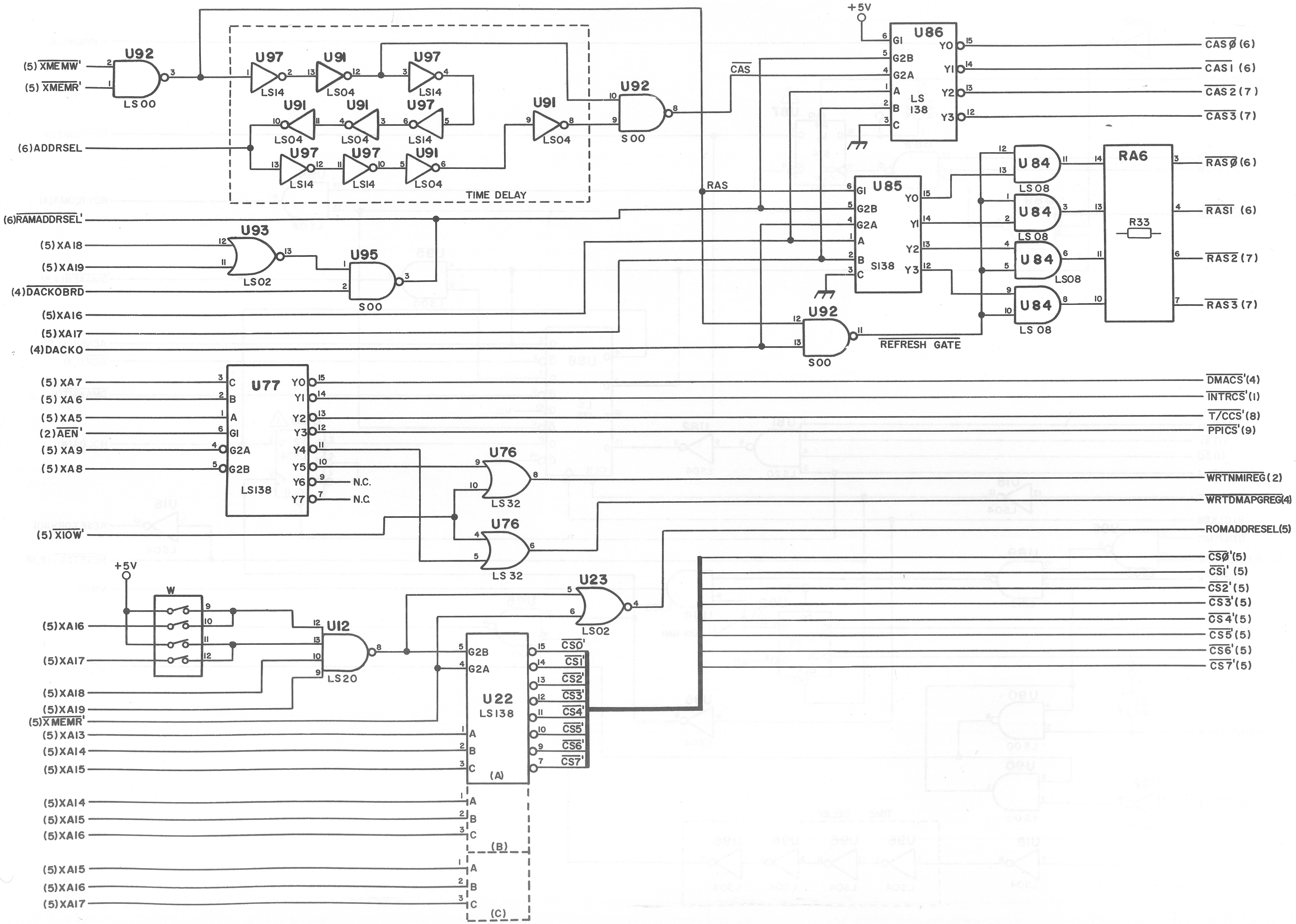
R101 5K6
C102 33p 56p
XTAL 101
CT101 * 35p
IC 101
MC 1372 P
OSCILATOR INPUT
XTAL OUT
RF MOD OUT
VCC
GND
DUTYCYCLE ADJ.
COLOR B INPUT
COLOR REF INPUT
COLOR A INPUT
LUMINANCE INPUT
CHROMA MOD OUT
CHROMINANCE INPUT
RF TANK
VR102 * 10K
C120 * 10p
R121 75
C121 1n
C122 1n
C126 27p
C124 27p
C130 4,7p
R122 680
L 107
R127 680
L 108
C132 27p
C133 27p
R133 22
SAIDA RF
L101 1µ
CT102 45p
C104 220p
L104 (BEAD)
R103 560
C108 22n
R104 56K
R106 220K
R109 330K
D 103
C105 100n
L 103
C109 100p
C110 100p
C111 330p
R110 2K2
Q102 BF 254B
R112 5K6
R114 5K6
C118 10n
C106 10n
R136 100Ω
10µ/16V C116
C117 22n
R120 360
L105
L106
Q106 BF 254 B
C127 3,9p
C128 5,6p
C125 8,2p
6p CT104 *
C129 10p
R124 3K3
C131 1n
R131 12K
R130 12K
R134 240
ONDA PORTADORA VIDEO
ONDA PORTADORA SOM (FM)
FAIXA LATERAL INFERIOR
FAIXA LATERAL SUPERIOR
FAIXAS LATERAIS SOM(FM)
AMPLITUDE
1,25 MC
4 MHz
4,5 MHz
6 MHz
C123 1n
CANAL 13 | VIDEO - 211,25 MHz
PORTADORA | AUDIO - 215,75 MHz
R123 5K6
R125 3K9
R128 22
Q107 BC 548 B
Q108 BC548B
C 134 33µ/16V
Q105 BC 558 B
R135 68
SAIDA MONITOR
R126 1K
R139 1K
C135 100n
R129 270
R132 2K2
D104 IN4148
R105 1K
R108 1K5
R111 1K5
R115 1K
D101 IN 4148
D102 IN 4148
R102 220K
C107 82p
L102 22µH
CT103 45p
Q 101 BC546
R107 2K2
C112 4n7
R113 3K3
C114 4n7
Q103 BC546
VR101
R117 100
C119 6n8
R138 47K
C115 10n
C113 10n
R116 1K5
Q104 BC546
R118 10K
R119 100K
R137 47K
C112 / 114 C113 / 115 MAF-ICO

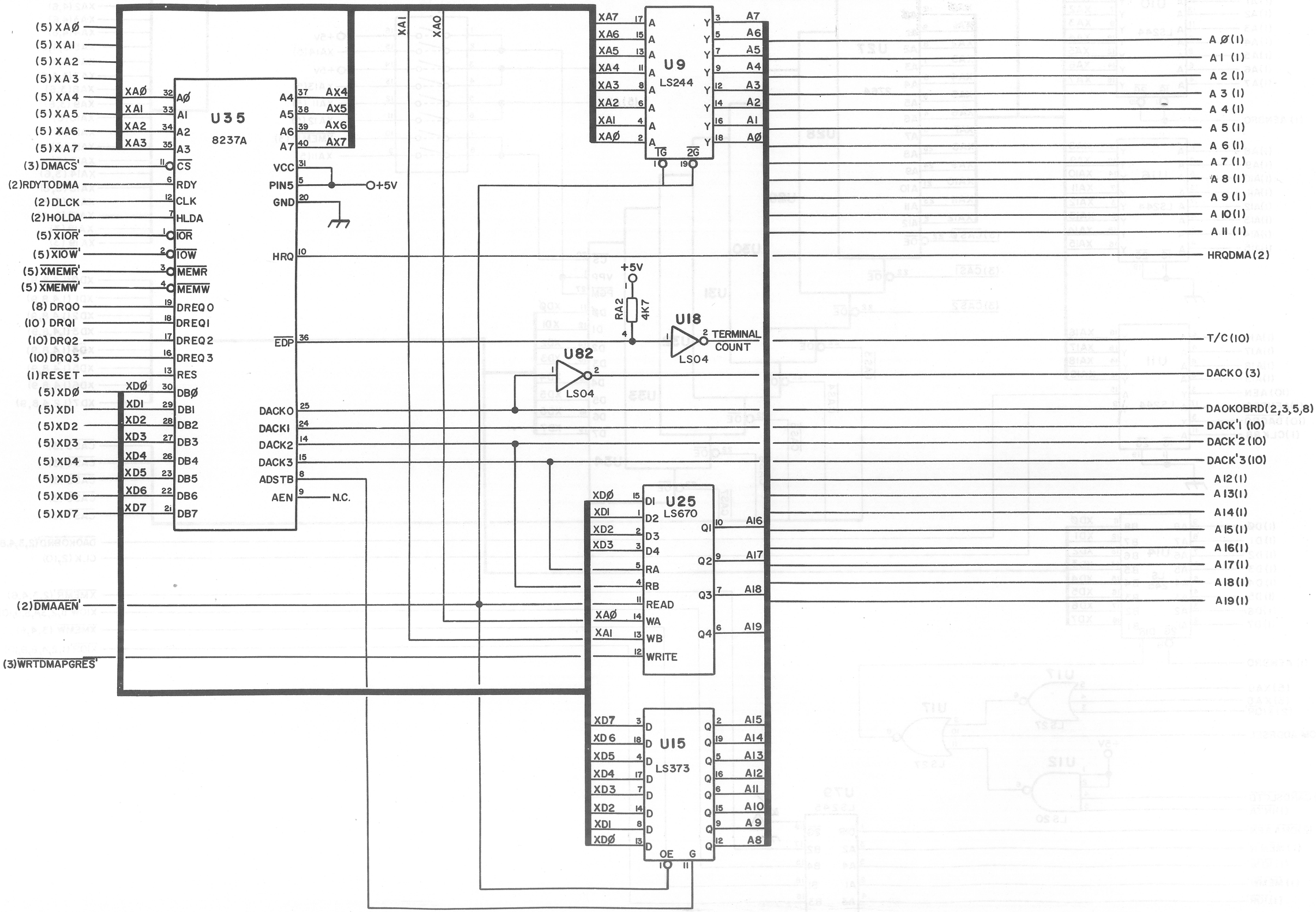
NOTAS:
RESISTORES EM OHMS (Ω), K = 1000 Ω.
CAPACITORES EM µF. n = 10^{-3} µF; P = 10^{-6} µF.
INDUTORES EM MH, µ = 10^{-3} MH.
ESPECIFICAÇÕES E CIRCUITOS SUJEITOS A ALTERAÇÕES SEM PRÉVIO AVISO
*R139, C135; S/ SERIGRAFIA NA PCI

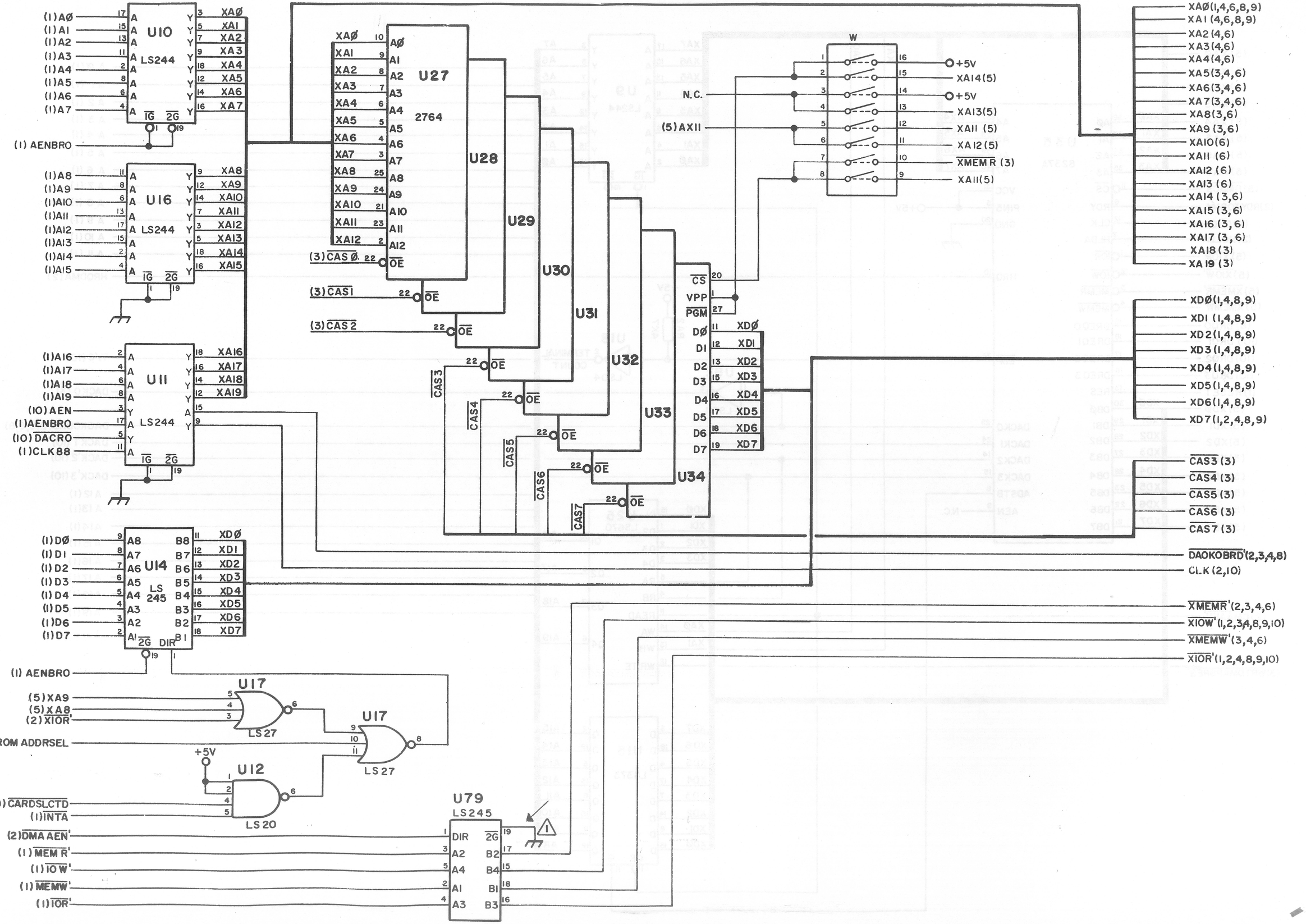
BC 548
BC 546
BC 558
BF 254

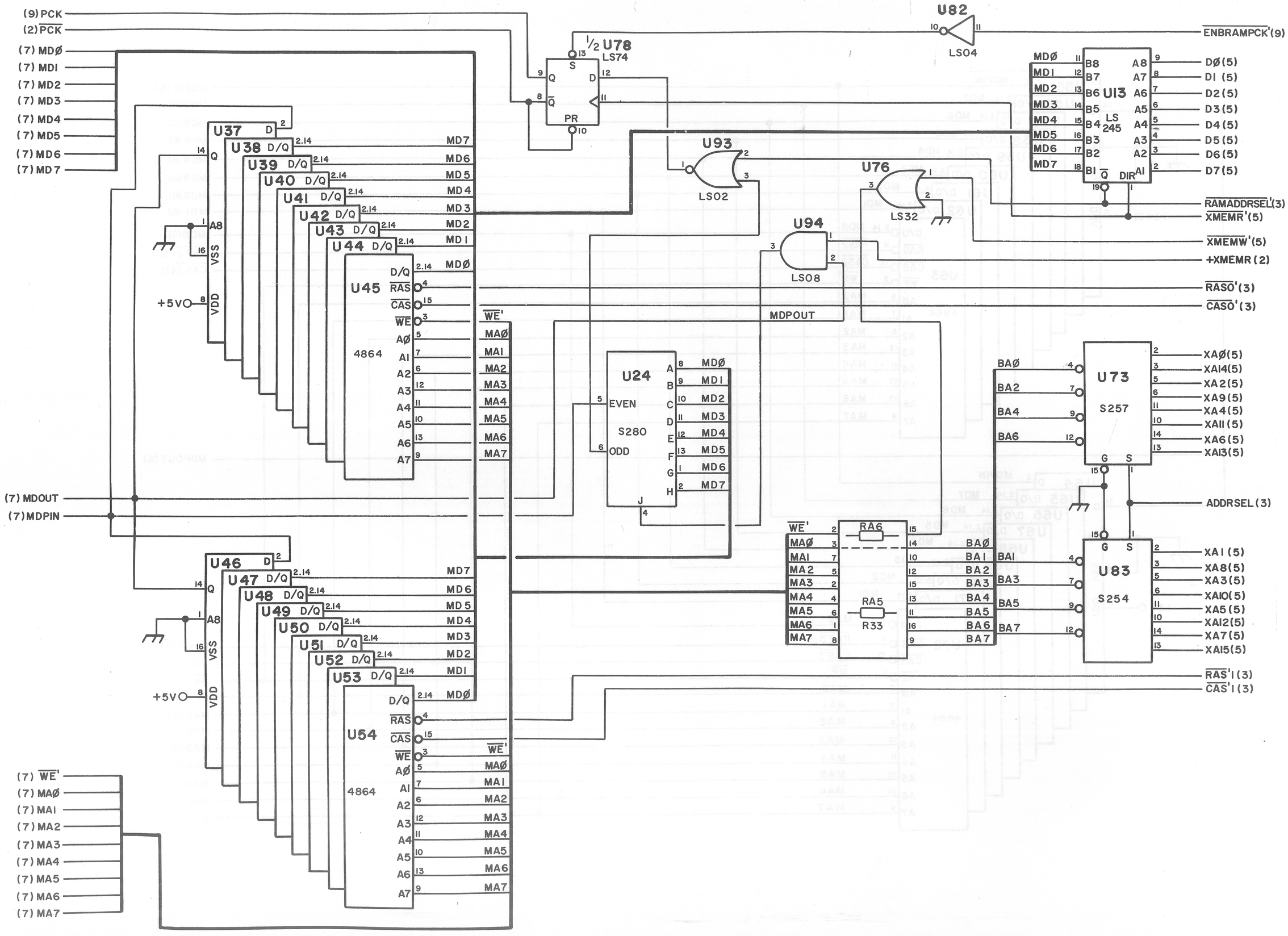

U7
S373
(3,4,5,10) AI9
(3,4,5,10) AI8
(3,4,5,10) AI7
(3,4,5,10) AI6
(4,5,10) AI5
(4,5,10) AI4
(4,5,10) AI3
(4,5,10) AI2
AAI9
AAI8
AAI7
AAI6
AAI5
AAI4
AAI3
AAI2
AENBRD
ALE
(10) ALE
(10) OSC
(8) PCLK
U6
LS244
(4,5,10) AII
(4,5,10) AI0
(4,5,10) A9
(4,5,10) A8
AAII
AAI0
AA9
AA8
AENBRD
(2) LOCK
U5
S373
(4,5,10) A7
(4,5,10) A6
(4,5,10) A5
(4,5,10) A4
(4,5,10) A3
(4,5,10) A2
(4,5,10) AI
(4,5,10) AØ
AD7
AD6
AD5
AD4
AD3
AD2
AD1
ADØ
AENBRD
ALE
(2,5) CLK88
(2,4,9) RESET
U2
LS 245
(5,6,10) D7
(5,6,10) D6
(5,6,10) D5
(5,6,10) D4
(5,6,10) D3
(5,6,10) D2
(5,6,10) D1
(5,6,10) DØ
(2) SI
(2) SO
U18
LS04
RA2 4K7
(5,10) IOW
(5,10) MEMW
(5,10) IOR
(5,10) MEMR
(5) INTA
(2) N.P. NPI
U3
8088
C8 100n
+5V
RA2 4K7
GND
VCC
RQ/GTO
MN/MX
NMI
READY
CLK
RESET
INTR
ADØ
ADI
AD2
AD3
AD4
AD5
AD6
AD7
RQ/GTI
QSO
QSI
TEST
SO
SI
S2
LOCK
U8
8288
ALE
DEN
DT/R
MCE/PDEN
AIOWC
AMWC
IOWC
MWTC
IORC
MRDC
INTA
AEN
IOB
GND
CEN
VCC
N.C.
U4
SOCKET
BUSY
BHE/S7
U1
8284
COLOR ADJUST
14.318 MHZ
R1 560Ω
XTAL 1
CTI 50PF
R2 560Ω
XI
AENI
RDYI
AEN2
VCC
EFI
X2
READY
CLK
RES
RESET
OSC
ASYNC
F/C
PCLK
GND
RDY2
CSYNC
NMI (2)
RDY/WAIT (2)
DMA/WAIT (2)
D1 IN4148
R6 27K
C2 10µf
R5 27Ω
R3 27Ω
R4 27Ω
U74
8259
INT
IRO
IRI
IR2
IR3
IR4
IR5
IR6
IR7
CS
RD
WR
AØ
CSO
CSI
CS2
INTA
XDØ
XDI
XD2
XD3
XD4
XD5
XD6
XD7
SP/EN
N.C.
IRQ Ø (8)
IRQ 1 (9)
IRQ 2 (10)
IRQ 3 (10)
IRQ 4 (10)
IRQ 5 (10)
IRQ 6 (10)
IRQ 7 (10)
INTRCS(3)
XIOR (5)
XIOW (5)
XAØ (5)
XDØ(5)
XDI (5)
XD2(5)
XD3(5)
XD4(5)
XD5(5)
XD6(5)
XD7(5)
AENBRD(2)
AEN(2)

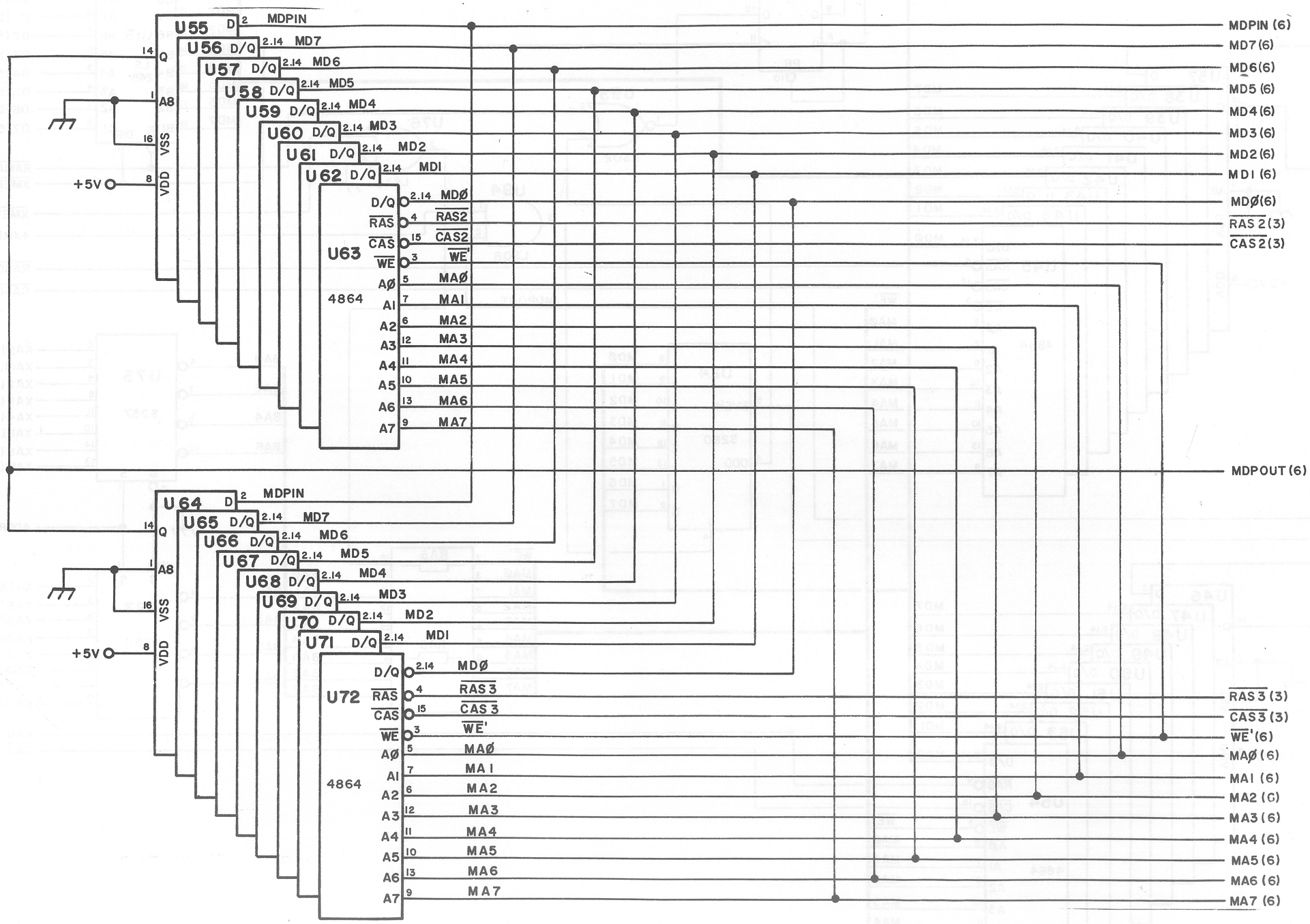

U82
(5) XMEMR
LS04
+XMEMR (6)
(10) I/O CHRDY
RA1 4K7
+5V
U87
PR
1/2 S74
CK CLR
RDY/WAIT (1)
(5) XIOR
(5) XIOW
U89
LS 10
U94
LS 08
RDYTODMA(4)
(4) DACKOBRD
U89
LS10
U95
LS00
DMAAEN(4,5)
U88
LS 175
AENBRD(1,5)
AEN (1,3)
DMAWAIT(1)
N.C.
(1) LOCK
(1) SI
(1) SO
(4) HRQDMA
U81
LS 20
U82
LS04
U80
1/2 LS74
HOLDA(4)
U18
LS04
(1) RESET
(1) CLK88
U18
LS04
RESETDRV(10)
RESETDRV(8,9)
U95
LS00
(1) N.P.NPI
(9) N.P.INSTLSW
(6) PCK
U89
LS10
NMI(I)
U94
LS08
+5V
U80
PR
1/2 LS 74
CK CLR
ALLOW NMI
N.C.
U95
S00
DCLK(4)
(5) XD7
(3) WRTNMIREG
I/O CHCK(9)
+5V
RA1 4K7
(10) I/O CHCK
U90
LS 00
U96
LS04
U90
LS00
U82
LS04
(9) ENABLEI/OCK
TIME DELAY
U18
LS04
(5) CLK
U96
LS04
U96
LS04
U96
LS04
U96
LS04

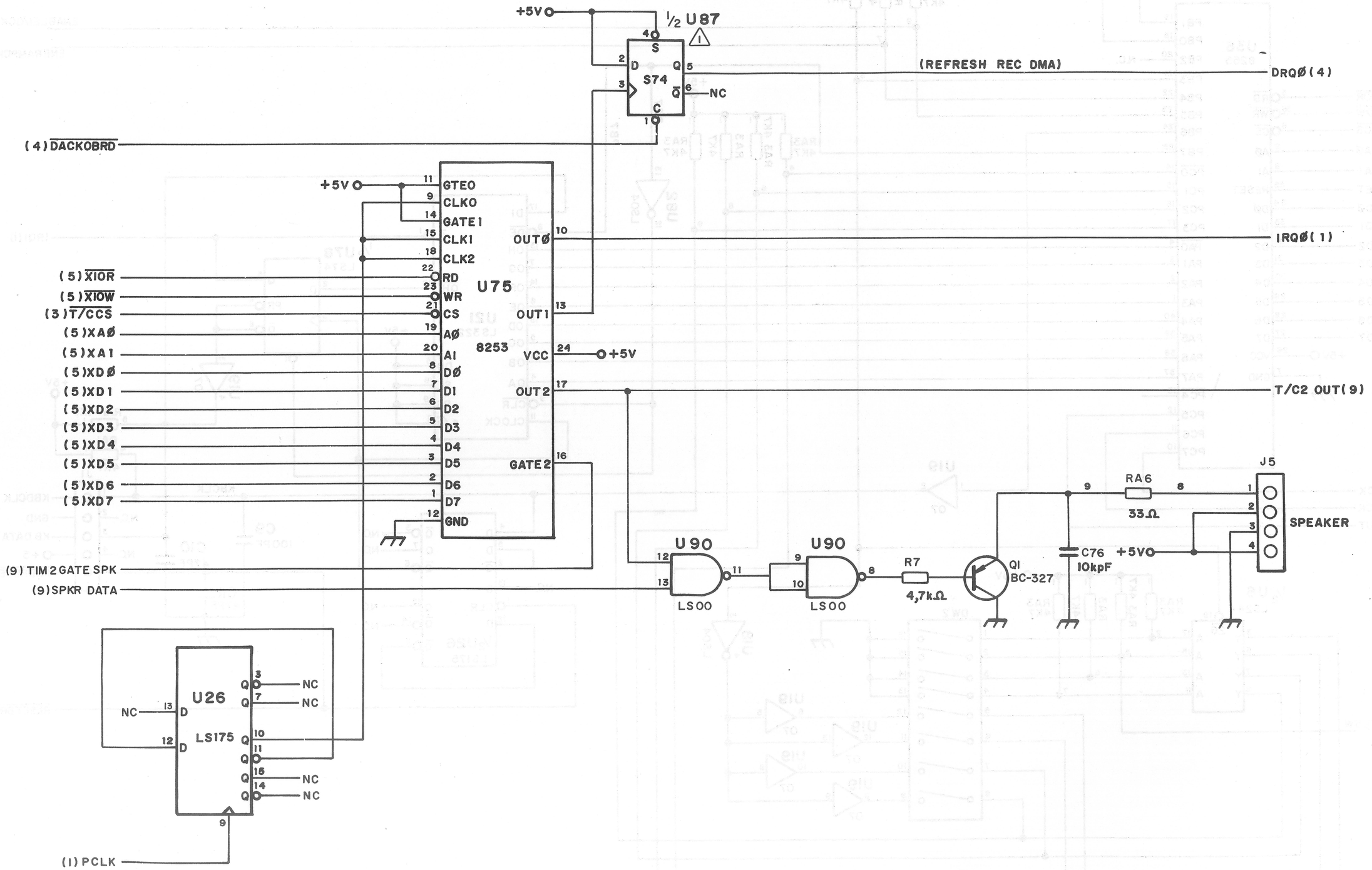

(5) XMEMW'
(5) XMEMR'
U92
LS00
U97
LS14
U91
LS04
U97
LS14
U91
LS04
U91
LS04
U97
LS14
U97
LS14
U91
LS04
TIME DELAY
U91
LS04
U92
S00
(6)ADDRSEL
(6)RAMADDRSEL'
(5) XA18
(5) XA19
U93
LS02
U95
S00
(4)DACKOBRD
(5)XA16
(5)XA17
(4)DACKO
CAS
RAS
+5V
U86
LS 138
CASØ (6)
CAS1 (6)
CAS2 (7)
CAS3 (7)
U85
SI38
U84
LS08
U84
LS08
U84
LS08
U84
LS 08
RA6
R33
RASØ (6)
RAS1 (6)
RAS2 (7)
RAS3 (7)
U92
S00
REFRESH GATE
(5) XA7
(5) XA6
(5) XA5
(2) AEN'
(5) XA9
(5) XA8
U77
LS138
N.C.
N.C.
U76
LS32
U76
LS 32
(5) XIOW'
DMACS'(4)
INTRCS'(1)
T/CCS'(8)
PPICS'(9)
WRTNMIREG(2)
WRTDMAPGREG(4)
ROMADDRESEL(5)
CSØ'(5)
CS1' (5)
CS2'(5)
CS3'(5)
CS4'(5)
CS5'(5)
CS6'(5)
CS7'(5)
+5V
W
(5)XA16
(5)XA17
(5)XA18
(5)XA19
(5)XMEMR'
U12
LS20
U23
LS02
U22
LS138
(A)
(B)
(C)
(5)XA13
(5)XA14
(5)XA15
(5)XA14
(5)XA15
(5)XA16
(5)XA15
(5)XA16
(5)XA17

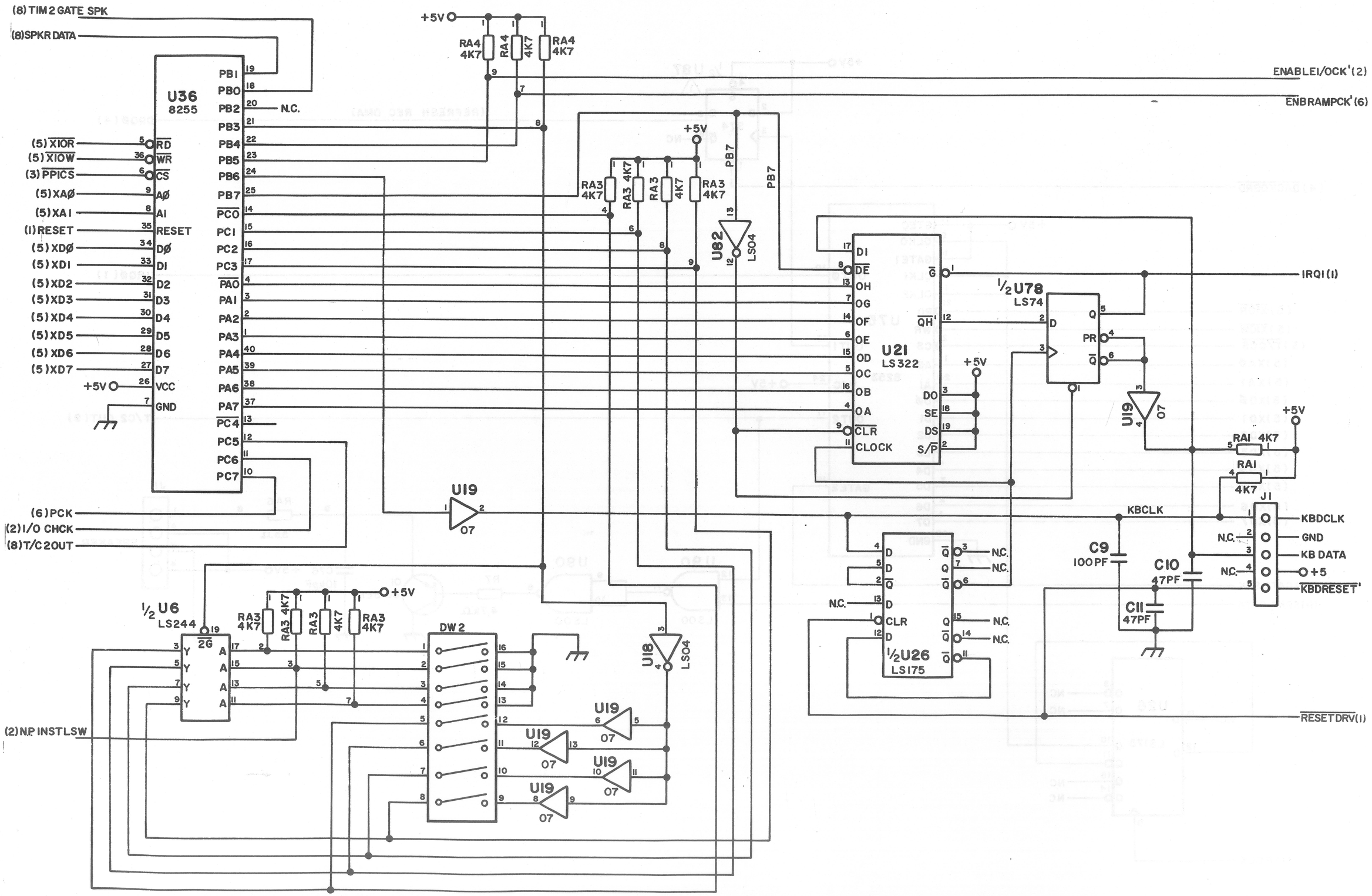

(5) XAØ
(5) XA1
(5) XA2
(5) XA3
(5) XA4
(5) XA5
(5) XA6
(5) XA7
(3) DMACS'
(2) RDYTODMA
(2) DLCK
(2) HOLDA
(5) XIOR'
(5) XIOW'
(5) XMEMR'
(5) XMEMW'
(8) DRQ0
(10) DRQ1
(10) DRQ2
(10) DRQ3
(1) RESET
(5) XDØ
(5) XD1
(5) XD2
(5) XD3
(5) XD4
(5) XD5
(5) XD6
(5) XD7
(2) DMAAEN'
(3) WRTDMAPGRES'
U35
8237A
XAØ
XA1
XA2
XA3
AØ
A1
A2
A3
CS
RDY
CLK
HLDA
IOR
IOW
MEMR
MEMW
DREQ0
DREQ1
DREQ2
DREQ3
RES
DBØ
DB1
DB2
DB3
DB4
DB5
DB6
DB7
A4
A5
A6
A7
AX4
AX5
AX6
AX7
VCC
PIN5
GND
+5V
HRQ
EDP
DACK0
DACK1
DACK2
DACK3
ADSTB
AEN
N.C.
XA1
XA0
U9
LS244
XA7
XA6
XA5
XA4
XA3
XA2
XA1
XAØ
A7
A6
A5
A4
A3
A2
A1
AØ
TG
2G
A Ø (1)
A 1 (1)
A 2 (1)
A 3 (1)
A 4 (1)
A 5 (1)
A 6 (1)
A 7 (1)
A 8 (1)
A 9 (1)
A 10 (1)
A 11 (1)
HRQDMA (2)
+5V
RA2
4K7
U18
LS04
TERMINAL
COUNT
T/C (10)
U82
LS04
DACK0 (3)
DAOKOBRD (2,3,5,8)
DACK'1 (10)
DACK'2 (10)
DACK'3 (10)
U25
LS670
DI
D2
D3
D4
RA
RB
READ
WA
WB
WRITE
Q1
Q2
Q3
Q4
A16
A17
A18
A19
A12 (1)
A13 (1)
A14 (1)
A15 (1)
A16 (1)
A17 (1)
A18 (1)
A19 (1)
U15
LS373
D
Q
OE
G
A15
A14
A13
A12
A11
A10
A9
A8

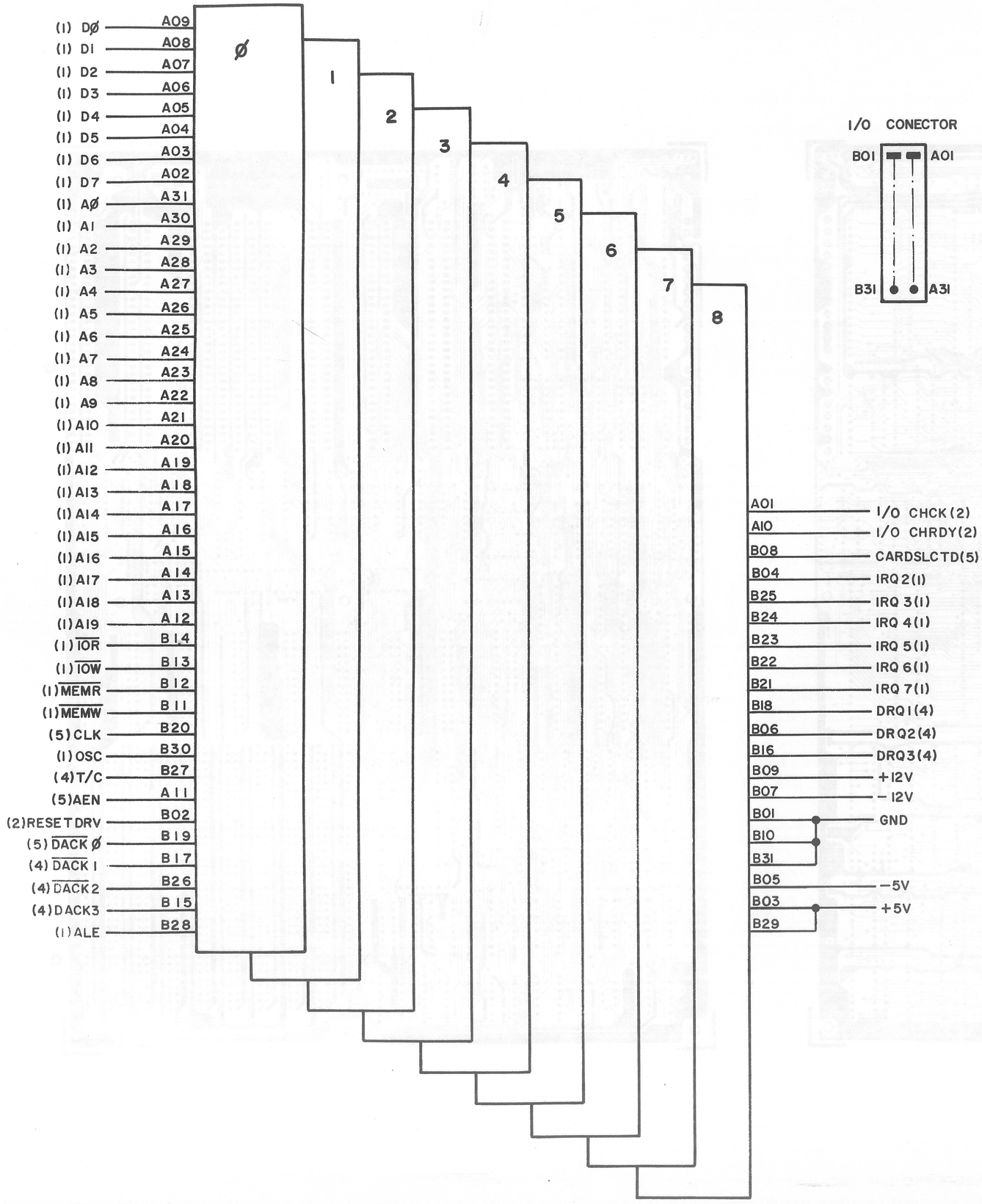

U10 LS244
(1)AØ
(1)A1
(1)A2
(1)A3
(1)A4
(1)A5
(1)A6
(1)A7
(1) AENBRO
XAØ
XA1
XA2
XA3
XA4
XA5
XA6
XA7
U16 LS244
(1)A8
(1)A9
(1)A10
(1)A11
(1)A12
(1)A13
(1)A14
(1)A15
XA8
XA9
XA10
XA11
XA12
XA13
XA14
XA15
U11 LS244
(1)A16
(1)A17
(1)A18
(1)A19
(10) AEN
(1)AENBRO
(10) DACRO
(1)CLK88
XA16
XA17
XA18
XA19
U27 2764
U28
U29
U30
U31
U32
U33
U34
(3)CAS Ø
(3)CAS1
(3)CAS2
CAS3
CAS4
CAS5
CAS6
CAS7
OE
W
N.C.
(5)AX11
+5V
XA14(5)
XA13(5)
XA11 (5)
XA12(5)
XMEMR (3)
XA11(5)
CS
VPP
PGM
DØ
D1
D2
D3
D4
D5
D6
D7
XDØ
XD1
XD2
XD3
XD4
XD5
XD6
XD7
U14 LS 245
(1) DØ
(1) D1
(1) D2
(1) D3
(1) D4
(1) D5
(1) D6
(1) D7
(1) AENBRO
U17 LS27
(5)XA9
(5)XA8
(2)XIOR'
(3)ROM ADDRSEL
U12 LS20
+5V
(10) CARDSLCTD
(1)INTA
U79 LS245
(2)DMA AEN'
(1) MEM R'
(1) IO W'
(1) MEMW'
(1) IOR'
XAØ(1,4,6,8,9)
XA1 (4,6,8,9)
XA2 (4,6)
XA3 (4,6)
XA4 (4,6)
XA5 (3,4,6)
XA6 (3,4,6)
XA7 (3,4,6)
XA8 (3,6)
XA9 (3,6)
XA10 (6)
XA11 (6)
XA12 (6)
XA13 (6)
XA14 (3,6)
XA15 (3,6)
XA16 (3,6)
XA17 (3,6)
XA18 (3)
XA19 (3)
XDØ(1,4,8,9)
XD1 (1,4,8,9)
XD2 (1,4,8,9)
XD3 (1,4,8,9)
XD4 (1,4,8,9)
XD5 (1,4,8,9)
XD6 (1,4,8,9)
XD7 (1,2,4,8,9)
CAS3 (3)
CAS4 (3)
CAS5 (3)
CAS6 (3)
CAS7 (3)
DAOKOBRD' (2,3,4,8)
CLK (2,10)
XMEMR' (2,3,4,6)
XIOW' (1,2,3,4,8,9,10)
XMEMW' (3,4,6)
XIOR' (1,2,4,8,9,10)


(9) PCK
(2) PCK
(7) MDØ
(7) MDI
(7) MD2
(7) MD3
(7) MD4
(7) MD5
(7) MD6
(7) MD7
U37
U38 D/Q
U39 D/Q
U40 D/Q
U41 D/Q
U42 D/Q
U43 D/Q
U44 D/Q
U45
4864
U46
U47 D/Q
U48 D/Q
U49 D/Q
U50 D/Q
U51 D/Q
U52 D/Q
U53 D/Q
U54
4864
+5V
VSS
VDD
A8
MD7
MD6
MD5
MD4
MD3
MD2
MD1
MDØ
WE'
MAØ
MAI
MA2
MA3
MA4
MA5
MA6
MA7
(7) MDOUT
(7) MDPIN
(7) WE'
(7) MAØ
(7) MAI
(7) MA2
(7) MA3
(7) MA4
(7) MA5
(7) MA6
(7) MA7
½ U78 LS74
U82 LS04
U93 LS02
U76 LS32
U94 LS08
MDPOUT
U24
EVEN
ODD
S280
U13 LS 245
U73 S257
U83 S254
RA6
RA5
R33
ENBRAMPCK'(9)
RAMADDRSEL'(3)
XMEMR'(5)
XMEMW'(5)
+XMEMR(2)
RASO'(3)
CASO'(3)
ADDRSEL(3)
RAS'I(3)
CAS'I(3)
DØ(5)
DI(5)
D2(5)
D3(5)
D4(5)
D5(5)
D6(5)
D7(5)
XAØ(5)
XAI4(5)
XA2(5)
XA9(5)
XA4(5)
XAII(5)
XA6(5)
XAI3(5)
XAI(5)
XA8(5)
XA3(5)
XAIO(5)
XA5(5)
XAI2(5)
XA7(5)
XAI5(5)

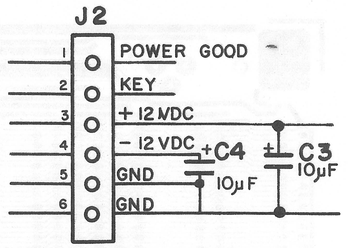

U55 D 2 MDPIN
U56 D/Q 2.14 MD7
U57 D/Q 2.14 MD6
U58 D/Q 2.14 MD5
U59 D/Q 2.14 MD4
U60 D/Q 2.14 MD3
U61 D/Q 2.14 MD2
U62 D/Q 2.14 MDI
14 Q
1 A8
16 VSS
8 VDD
+5V
U63 4864
D/Q 2.14 MDØ
RAS 4 RAS2
CAS 15 CAS2
WE 3 WE'
AØ 5 MAØ
A1 7 MA1
A2 6 MA2
A3 12 MA3
A4 11 MA4
A5 10 MA5
A6 13 MA6
A7 9 MA7
MDPIN (6)
MD7 (6)
MD6 (6)
MD5 (6)
MD4 (6)
MD3 (6)
MD2 (6)
MD1 (6)
MDØ (6)
RAS 2 (3)
CAS 2 (3)
MDPOUT (6)
U64 D 2 MDPIN
U65 D/Q 2.14 MD7
U66 D/Q 2.14 MD6
U67 D/Q 2.14 MD5
U68 D/Q 2.14 MD4
U69 D/Q 2.14 MD3
U70 D/Q 2.14 MD2
U71 D/Q 2.14 MDI
14 Q
1 A8
16 VSS
8 VDD
+5V
U72 4864
D/Q 2.14 MDØ
RAS 4 RAS 3
CAS 15 CAS 3
WE 3 WE'
AØ 5 MAØ
A1 7 MA1
A2 6 MA2
A3 12 MA3
A4 11 MA4
A5 10 MA5
A6 13 MA6
A7 9 MA7
RAS 3 (3)
CAS 3 (3)
WE' (6)
MAØ (6)
MA1 (6)
MA2 (6)
MA3 (6)
MA4 (6)
MA5 (6)
MA6 (6)
MA7 (6)

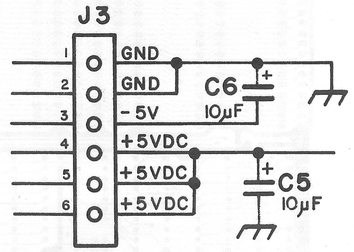

+5V
½ U87
S
D
S74
C
Q
Q̄
NC
(REFRESH REC DMA)
DRQØ(4)
(4) DACKOBRD
U75
8253
GTEO
CLKO
GATE1
CLK1
CLK2
RD
WR
CS
AØ
A1
DØ
D1
D2
D3
D4
D5
D6
D7
GND
OUTØ
OUT1
VCC
OUT2
GATE2
IRQØ(1)
T/C2 OUT(9)
(5) XIOR
(5) XIOW
(3) T/CCS
(5) XAØ
(5) XA1
(5) XDØ
(5) XD1
(5) XD2
(5) XD3
(5) XD4
(5) XD5
(5) XD6
(5) XD7
(9) TIM2 GATE SPK
(9) SPKR DATA
U90
LS00
R7
4,7kΩ
Q1
BC-327
C76
10kpF
RA6
33Ω
J5
SPEAKER
U26
LS175
(1) PCLK

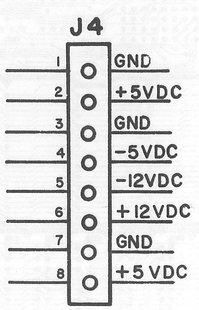

(8) TIM 2 GATE SPK
(8)SPKR DATA
U36
8255
PB1
PB0
PB2
N.C.
PB3
PB4
PB5
PB6
PB7
PC0
PC1
PC2
PC3
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PC4
PC5
PC6
PC7
(5) XIOR
(5) XIOW
(3) PPICS
(5) XAØ
(5) XA1
(1) RESET
(5) XDØ
(5) XD1
(5) XD2
(5) XD3
(5) XD4
(5) XD5
(5) XD6
(5) XD7
+5V
RD
WR
CS
AØ
A1
RESET
DØ
D1
D2
D3
D4
D5
D6
D7
VCC
GND
(6) PCK
(2) I/O CHCK
(8) T/C 2 OUT
RA4 4K7
RA4 4K7
RA4 4K7
ENABLE1/OCK'(2)
ENBRAMPCK'(6)
RA3 4K7
RA3 4K7
RA3 4K7
RA3 4K7
PB7
PB7
U82
LS04
U21
LS322
DI
DE
OH
OG
OF
OE
OD
OC
OB
OA
CLR
CLOCK
DO
SE
DS
S/P
G
QH'
IRQ1(1)
1/2 U78
LS74
D
PR
Q
U19
07
RA1 4K7
RA1 4K7
KBCLK
J1
KBDCLK
GND
KB DATA
+5
KBDRESET'
C9
100PF
C10
47PF
C11
47PF
1/2 U26
LS175
N.C.
RESETDRV(1)
U19
07
1/2 U6
LS244
2G
(2) N.P. INSTLSW
RA3 4K7
RA3 4K7
RA3 4K7
RA3 4K7
DW2
U18
LS04

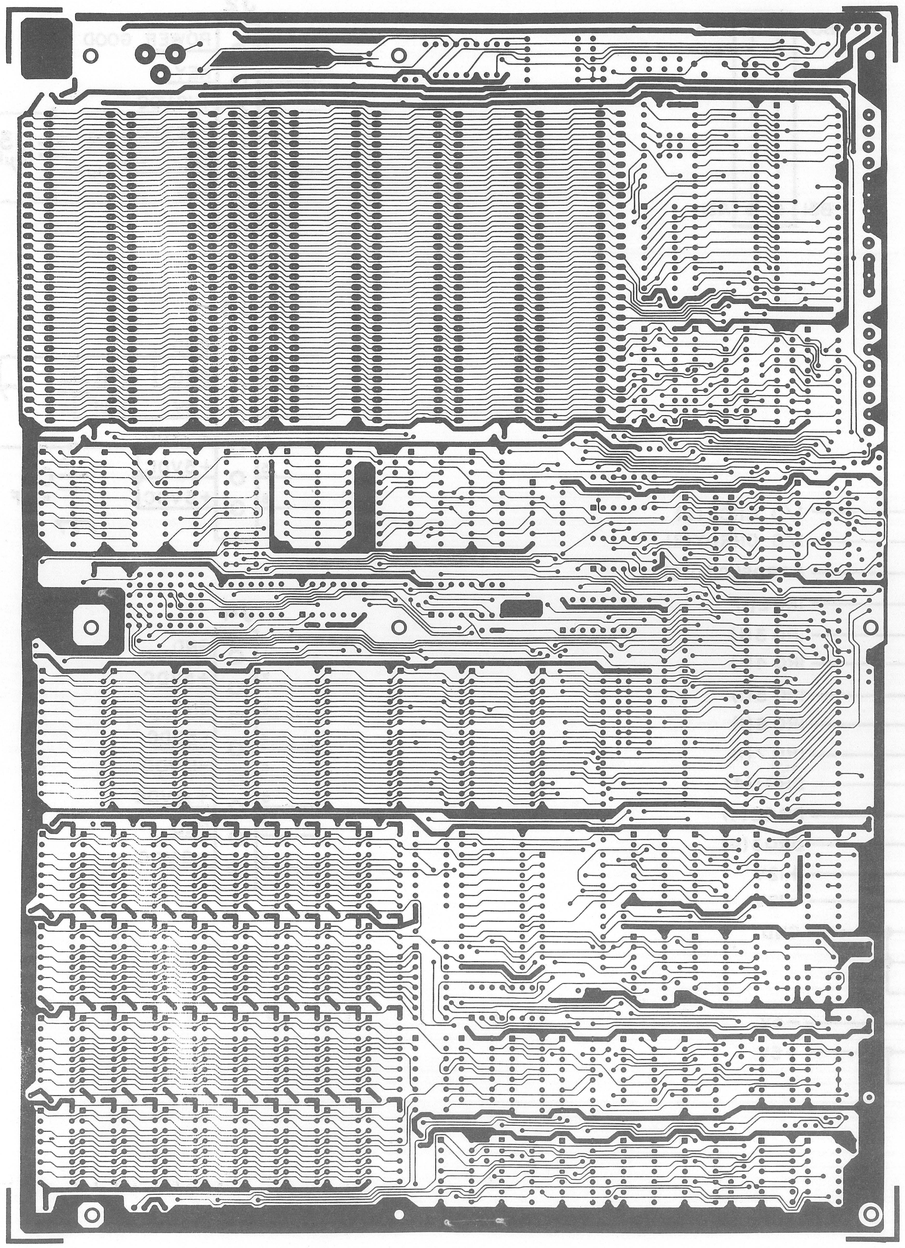

Ø
1
2
3
4
5
6
7
8
(1) DØ A09
(1) DI A08
(1) D2 A07
(1) D3 A06
(1) D4 A05
(1) D5 A04
(1) D6 A03
(1) D7 A02
(1) AØ A31
(1) A1 A30
(1) A2 A29
(1) A3 A28
(1) A4 A27
(1) A5 A26
(1) A6 A25
(1) A7 A24
(1) A8 A23
(1) A9 A22
(1) A10 A21
(1) A11 A20
(1) A12 A19
(1) A13 A18
(1) A14 A17
(1) A15 A16
(1) A16 A15
(1) A17 A14
(1) A18 A13
(1) A19 A12
(1) IOR B14
(1) IOW B13
(1) MEMR B12
(1) MEMW B11
(5) CLK B20
(1) OSC B30
(4) T/C B27
(5) AEN A11
(2) RESET DRV B02
(5) DACK Ø B19
(4) DACK 1 B17
(4) DACK 2 B26
(4) DACK 3 B15
(1) ALE B28
A01 I/O CHCK (2)
A10 I/O CHRDY (2)
B08 CARDSLCTD (5)
B04 IRQ 2 (1)
B25 IRQ 3 (1)
B24 IRQ 4 (1)
B23 IRQ 5 (1)
B22 IRQ 6 (1)
B21 IRQ 7 (1)
B18 DRQ 1 (4)
B06 DRQ 2 (4)
B16 DRQ 3 (4)
B09 +12V
B07 -12V
B01 GND
B10
B31
B05 -5V
B03 +5V
B29

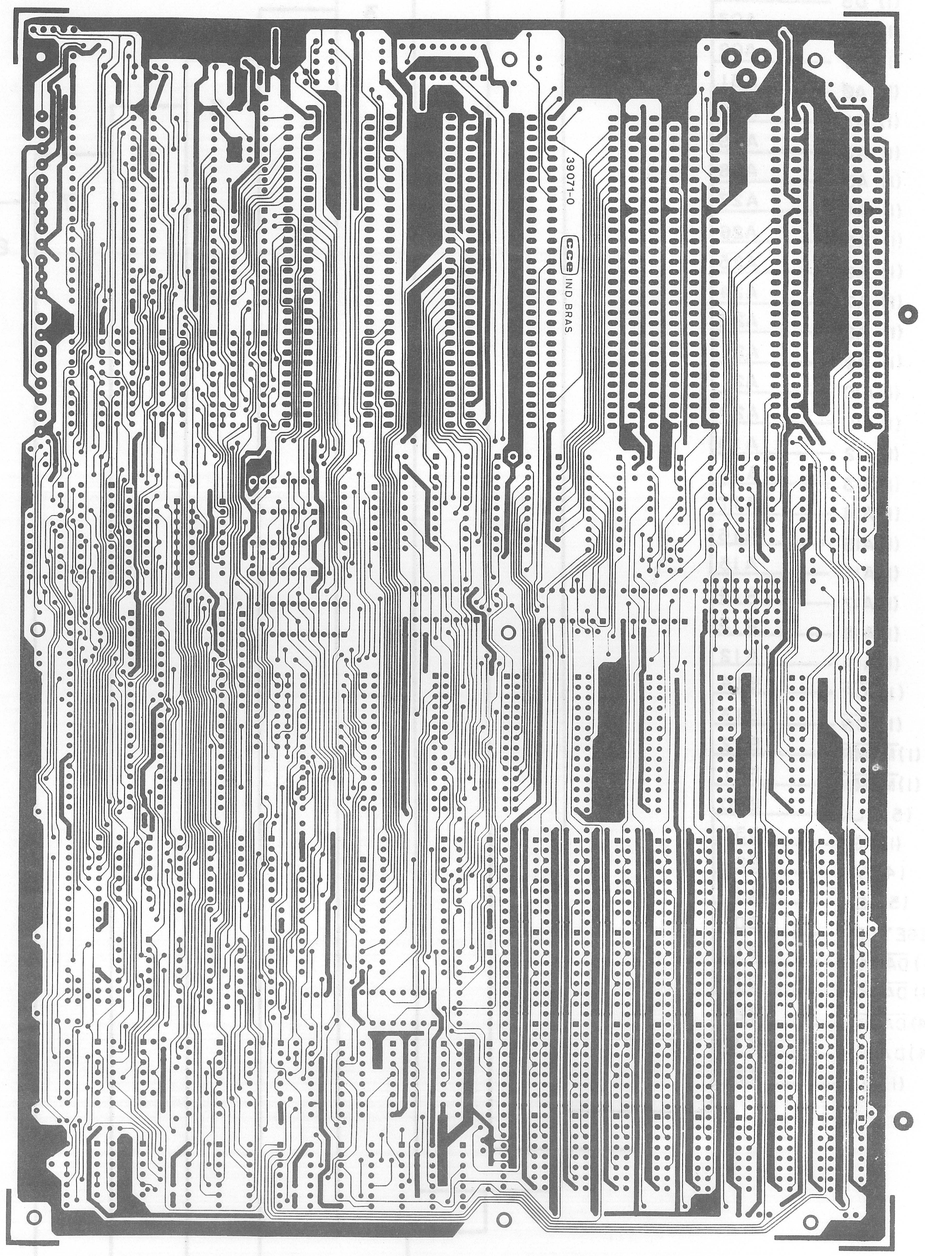
I/O CONECTOR
B01 A01
B31 A31

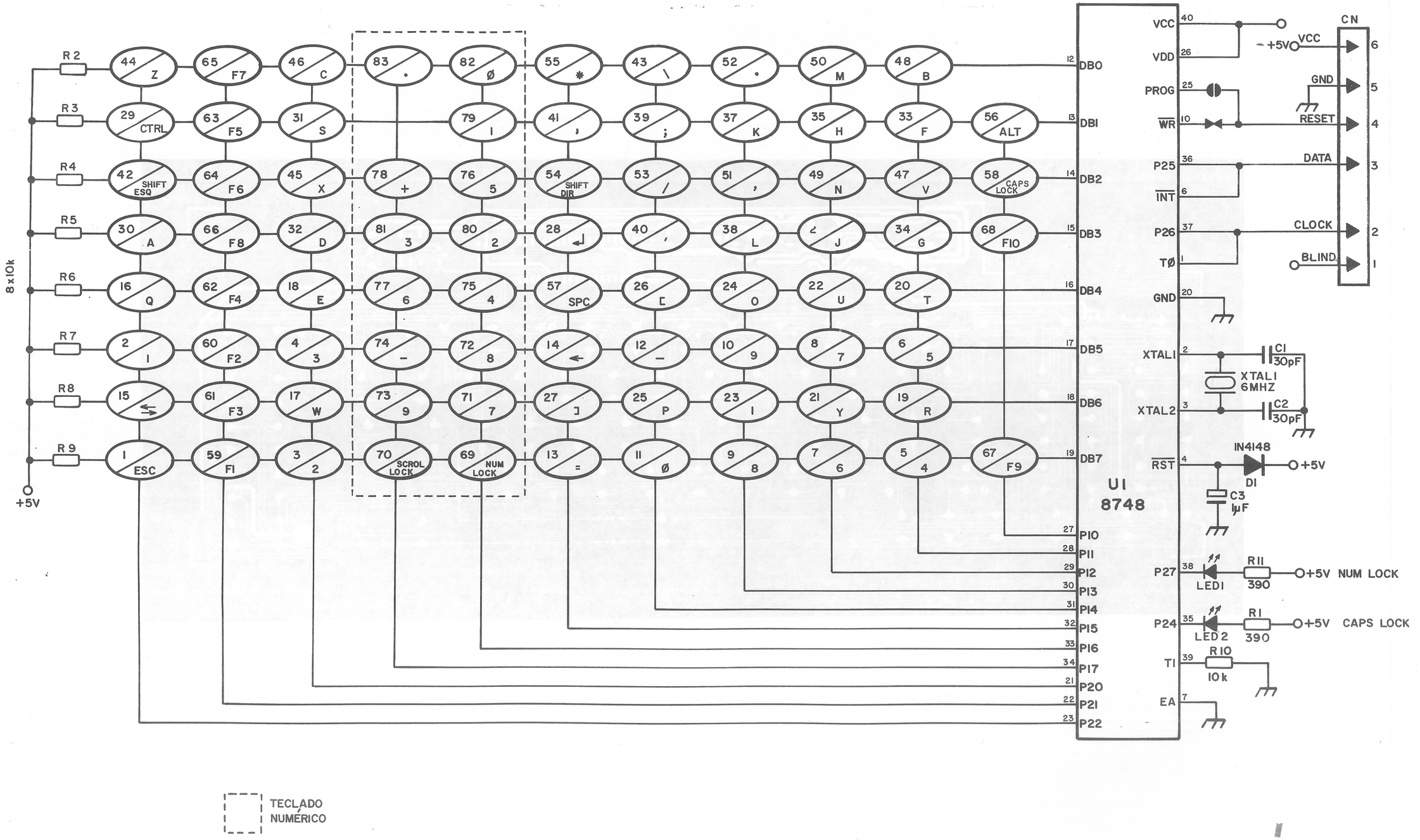

J2
1 POWER GOOD
2 KEY
3 +12 VDC
4 -12 VDC
5 GND
6 GND
+C4 10µF
C3 10µF


J3
1 GND
2 GND
3 -5V
4 +5VDC
5 +5VDC
6 +5VDC
C6 10µF
C5 10µF

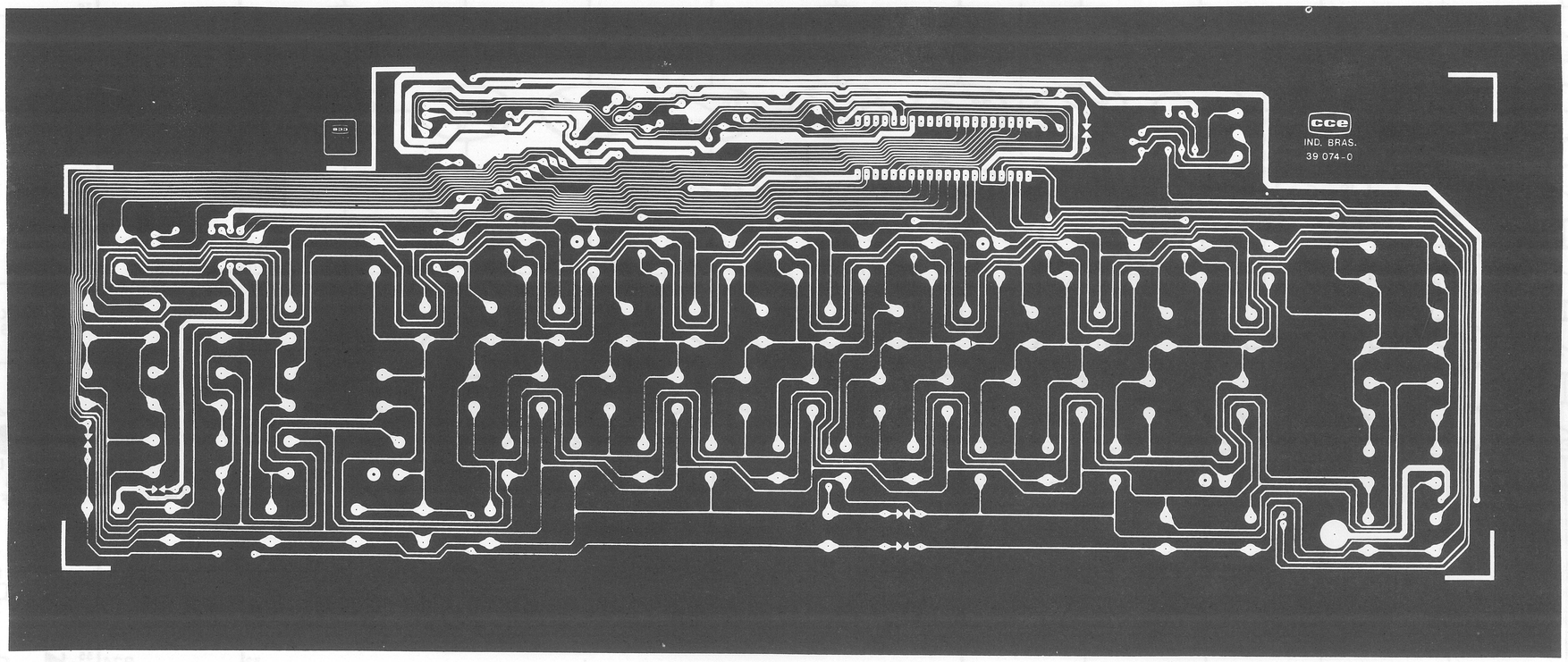

J4
1 GND
2 +5VDC
3 GND
4 -5VDC
5 -12VDC
6 +12VDC
7 GND
8 +5 VDC

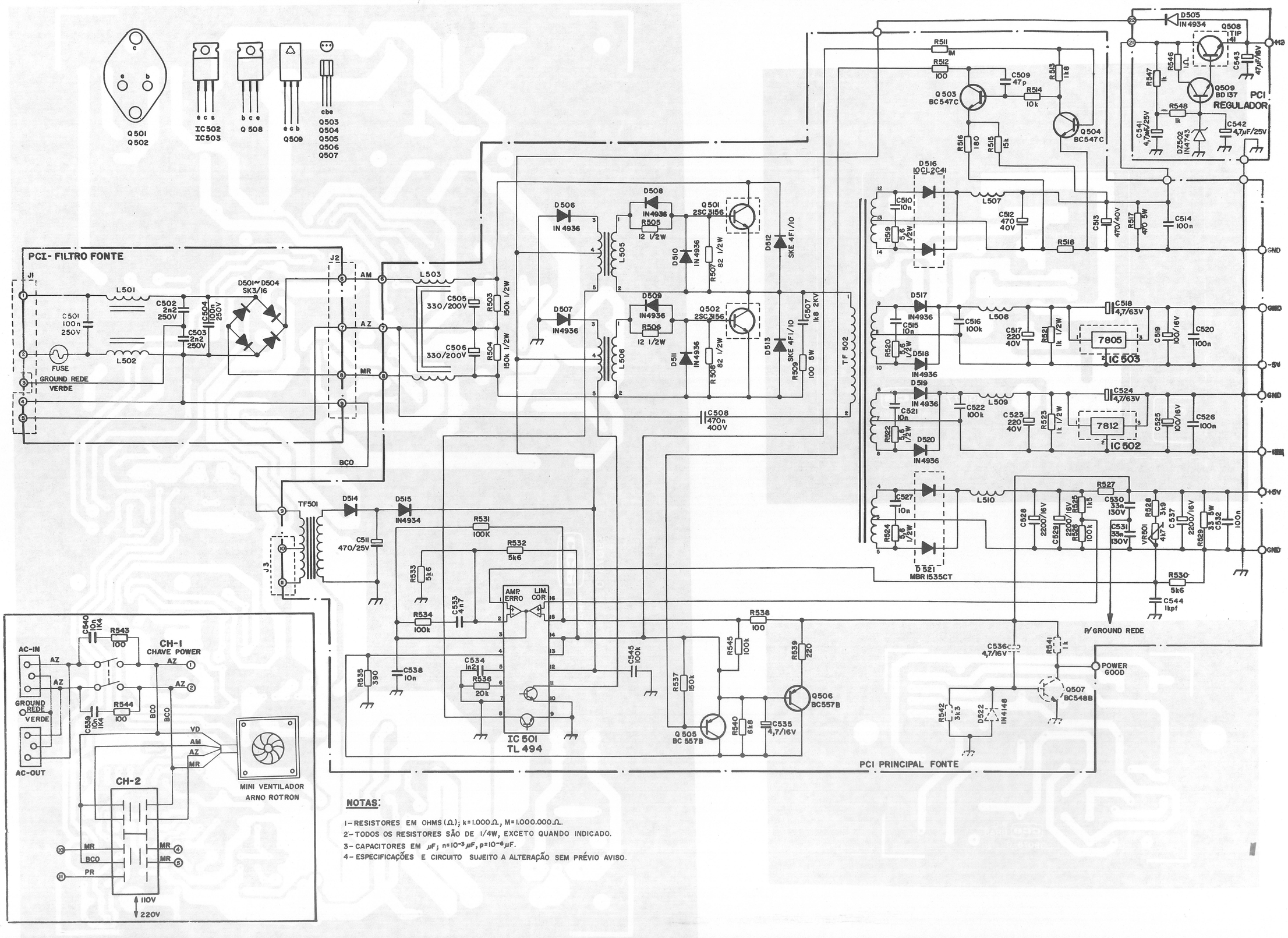



39071-0
CCE IND BRAS



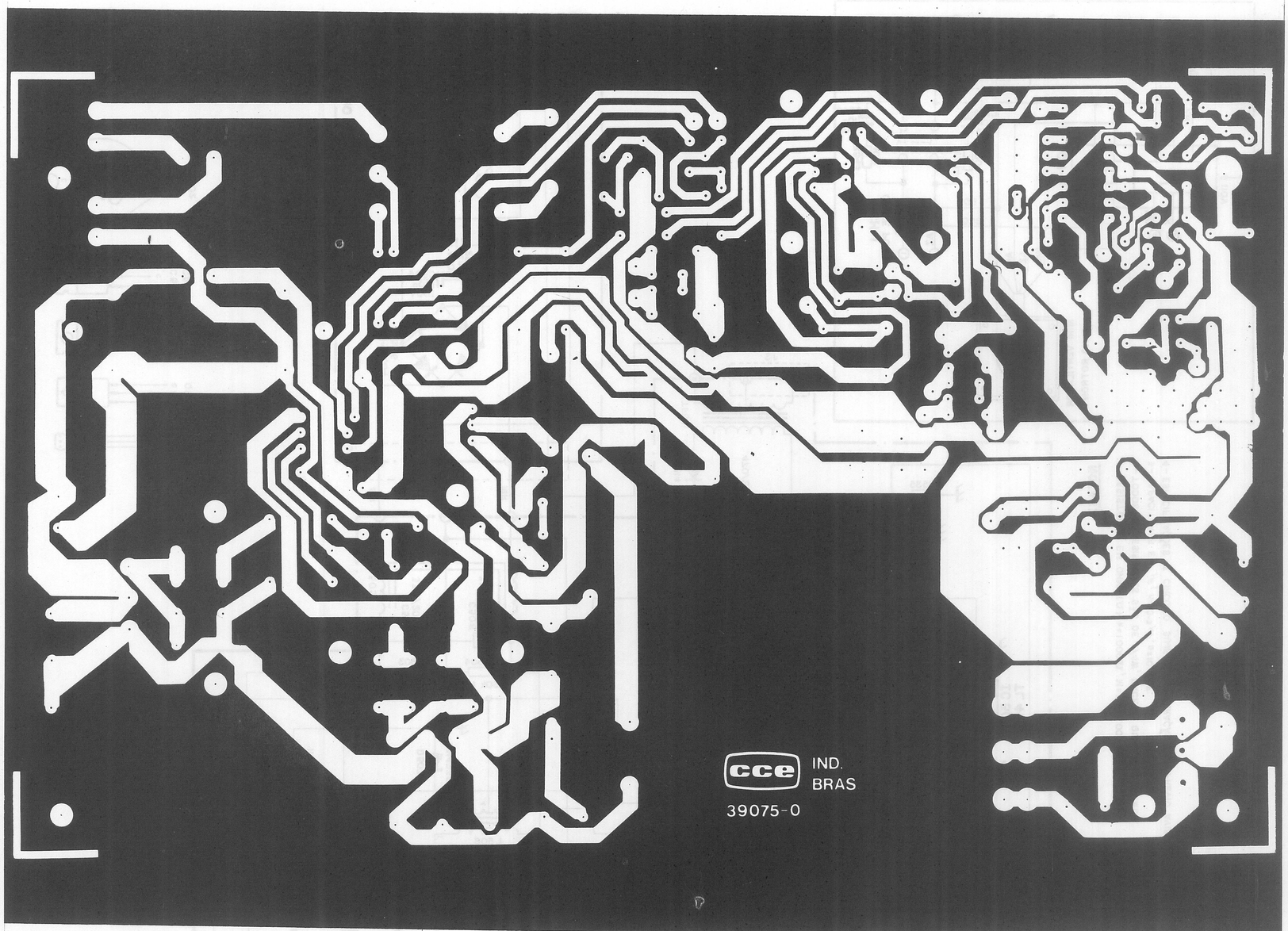
TECLADO NUMÉRICO

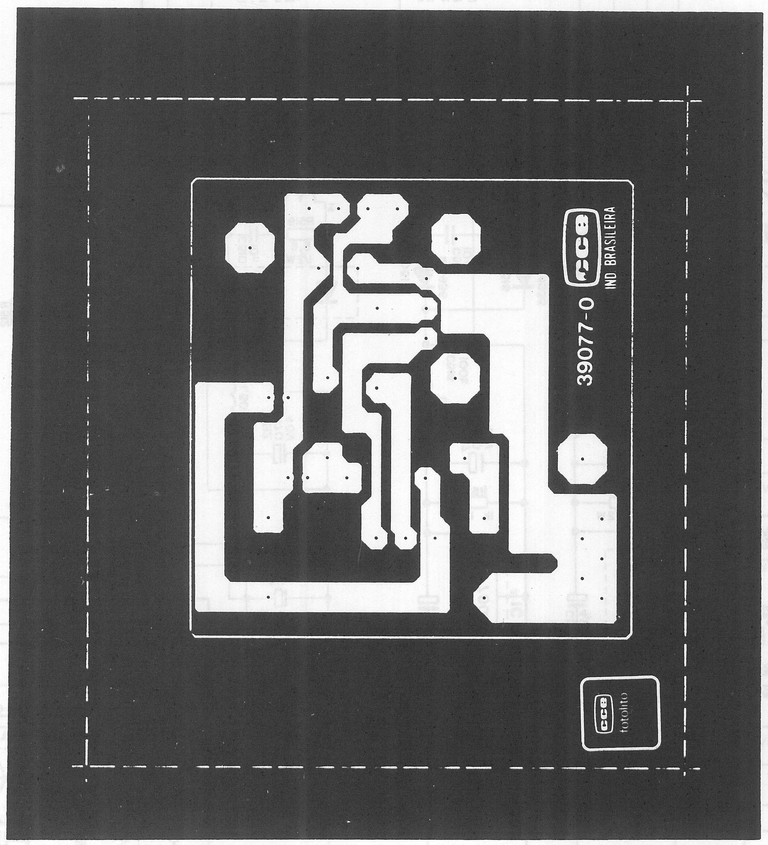

cce
IND. BRAS.
39.074-0

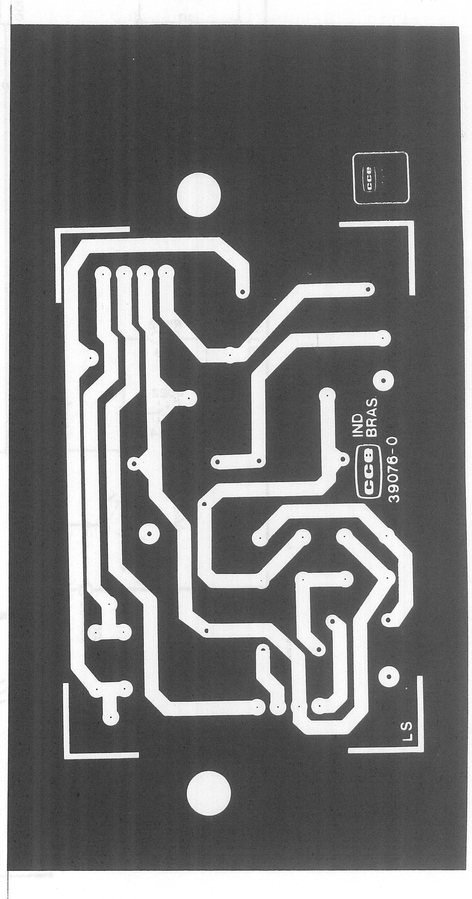


NOTAS:

1- RESISTORES EM OHMS (Ω); k=1.000Ω, M=1.000.000Ω.
2- TODOS OS RESISTORES SÃO DE 1/4W, EXCETO QUANDO INDICADO.
3- CAPACITORES EM µF; n=10⁻³µF, p=10⁻⁶µF.
4- ESPECIFICAÇÕES E CIRCUITO SUJEITO A ALTERAÇÃO SEM PRÉVIO AVISO.


cce
IND.
BRAS
39075-0


39077-0
cce
IND BRASILEIRA
cce
fotolito


LS
cce
IND.
BRAS
39076-0
cce

NOTA:
— RESISTORES DE 1/4W(SALVO ESPECIFICAÇÃO EM CONTRÁRIO).

SLOT B/29 — SLOT B/31 — +VCC — GND — C5 — C3 — C3,C5 = 4,7µF/35V

SLOT B/29 — SLOT B/31 — +VCC — GND — C2 — C4 — C6 — C7 — C8 — Cn — C2,C4,C6,C7,C8,...Cn = 100nF

+VCC — 8 X 220Ω — R16 R15 R14 R13 R10 R11 R12 R9

8 X 330Ω — R6 R4 R3 R5 R19 R20 R18 R17

U1 LS240

+INDEX — J2/6
+WRITE PROTECT — J2/16
+TRACK Ø — J2/15
+READ DATA — J2/17
+WRITE PROTECT — J3/28
+TRACK Ø — J3/26
+READ DATA — J3/30
+INDEX — J3/8

U23 LS245

SLOT A/9 DØ — SLOT A/8 D1 — SLOT A/7 D2 — SLOT A/6 D3 — SLOT A/5 D4 — SLOT A/4 D5 — SLOT A/3 D6 — SLOT A/2 D7

U20 74LS273

U19 D765AC

U15 LS04

RESET

WRITE CLOCK

INDEX

WRITE PROTECT TWO SIDE

DMA ACKNOWLEDGE

READ

TERMINAL COUNT

WRITE

CHIP SELECT

DATA STATUS REGISTER SELECT

INTERRUPT

DATA DMA REQUEST

U13 LS109

U7 LS93

U18 FLOPPY DISK DATA SEPARATOR WD9216

READ DATA WINDOW — CLOCK — READ DATA — VCO/SYNC ENABLE PHASE LOCKED LOOP — WRITE DATA

U9 S153

U8 LS175

LOW CURRENT DIRECTION — WRITE PRECOMPENSATION MFM MODE — WRITE PRECOMPENSATION MFM MODE

FALT/TRACK Ø

READ WRITE SEEK — FAULT RESET STEP

HEAD SELECT

U3 LS178

U4 MC3487P

SLOT B/26 DACK 2 — SLOT B/27 T/C — SLOT B/14 IOR — SLOT A/22 A9 — SLOT A/23 A8 — SLOT A/24 A7 — SLOT A/25 A6 — SLOT A/26 A5 — SLOT A/27 A4 — SLOT A/28 A3 — SLOT A/11 AEN — SLOT B/13 IOW — SLOT A/29 A2 — SLOT A/30 A1 — SLOT A/31 AØ — SLOT B/22 IRQ6 — SLOT B/6 DRQ2

U5 LS08 — U10 LS08 — U14 LS32 — U22 LS30 — U6 LS02

U11 7438 — -DRIVE SELECT 2 — J3/10
U11 7438 — -DRIVE SELECT 1 — J3/14
U16 7438 — -DRIVE SELECT 3 — J2/9
U16 7438 — -MOTOR ENABLE 3 — J2/7
U16 7438 — -DRIVE SELECT 4 — J2/8
U16 7438 — -MOTOR ENABLE 4 — J2/10
U11 7438 — -MOTOR ENABLE 1 — J3/12
U11 7438 — -MOTOR ENABLE 2 — J3/16

R21 1k — R22 1k — +VCC

U2 LS04 — R2 1k — R1 1k — XTAL 8MHz — C1 47pF

U12 LS00

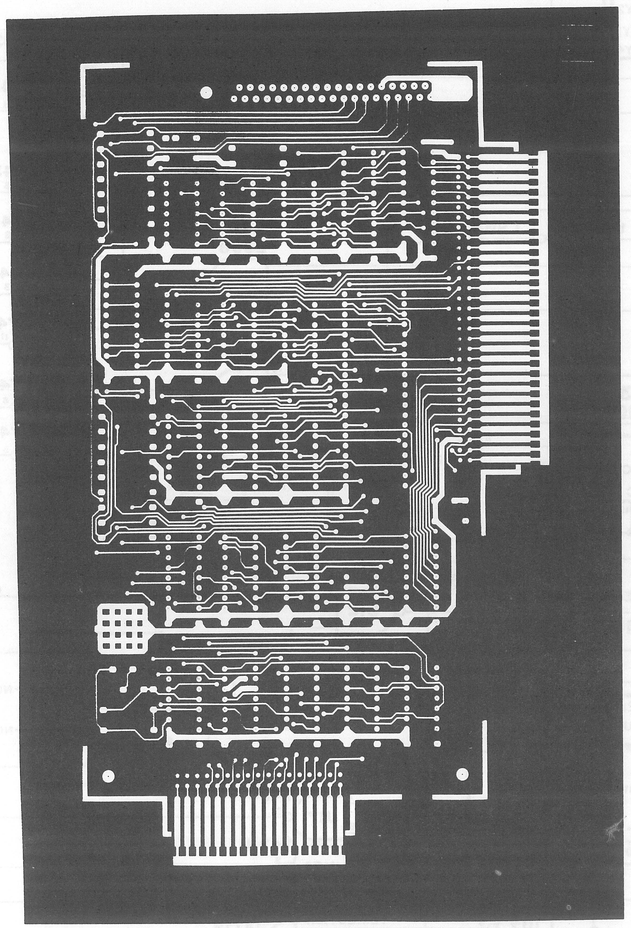
+VCC — R8 2k — R7 2k

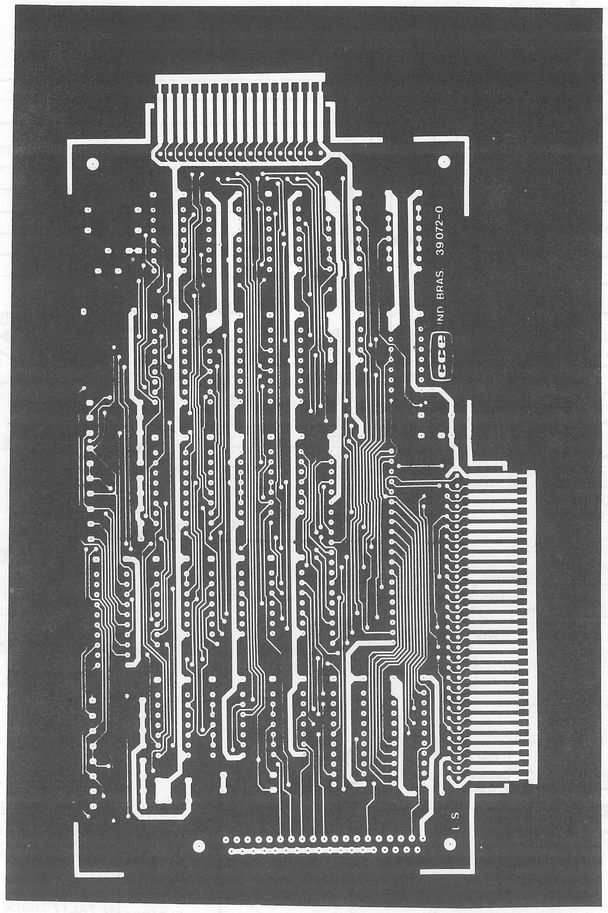
U4 MC3487P

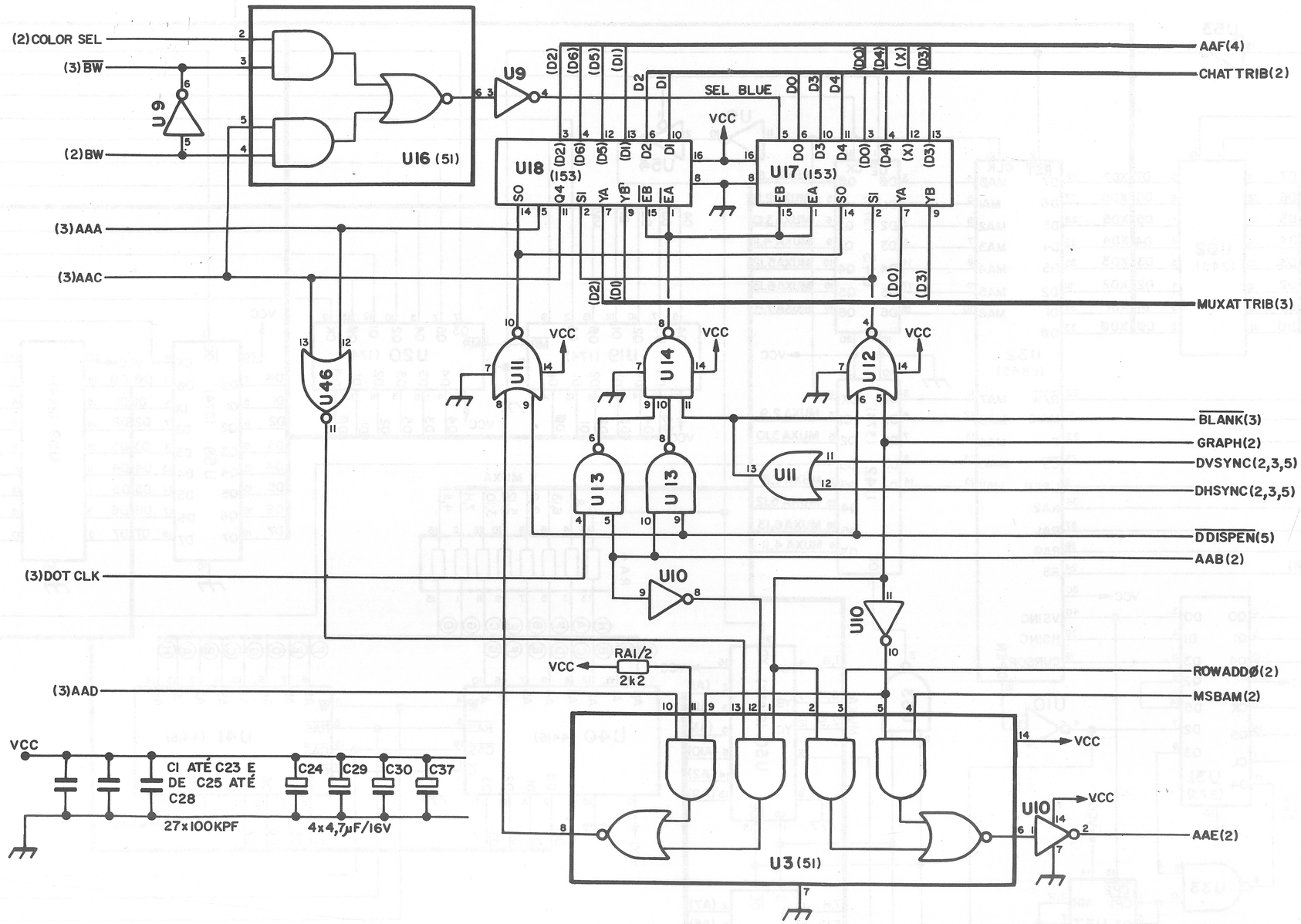
+WRITE ENABLE — J2/14
+WRITE ENABLE — J3/24
+WRITE DATA — J2/22
+WRITE DATA — J3/13

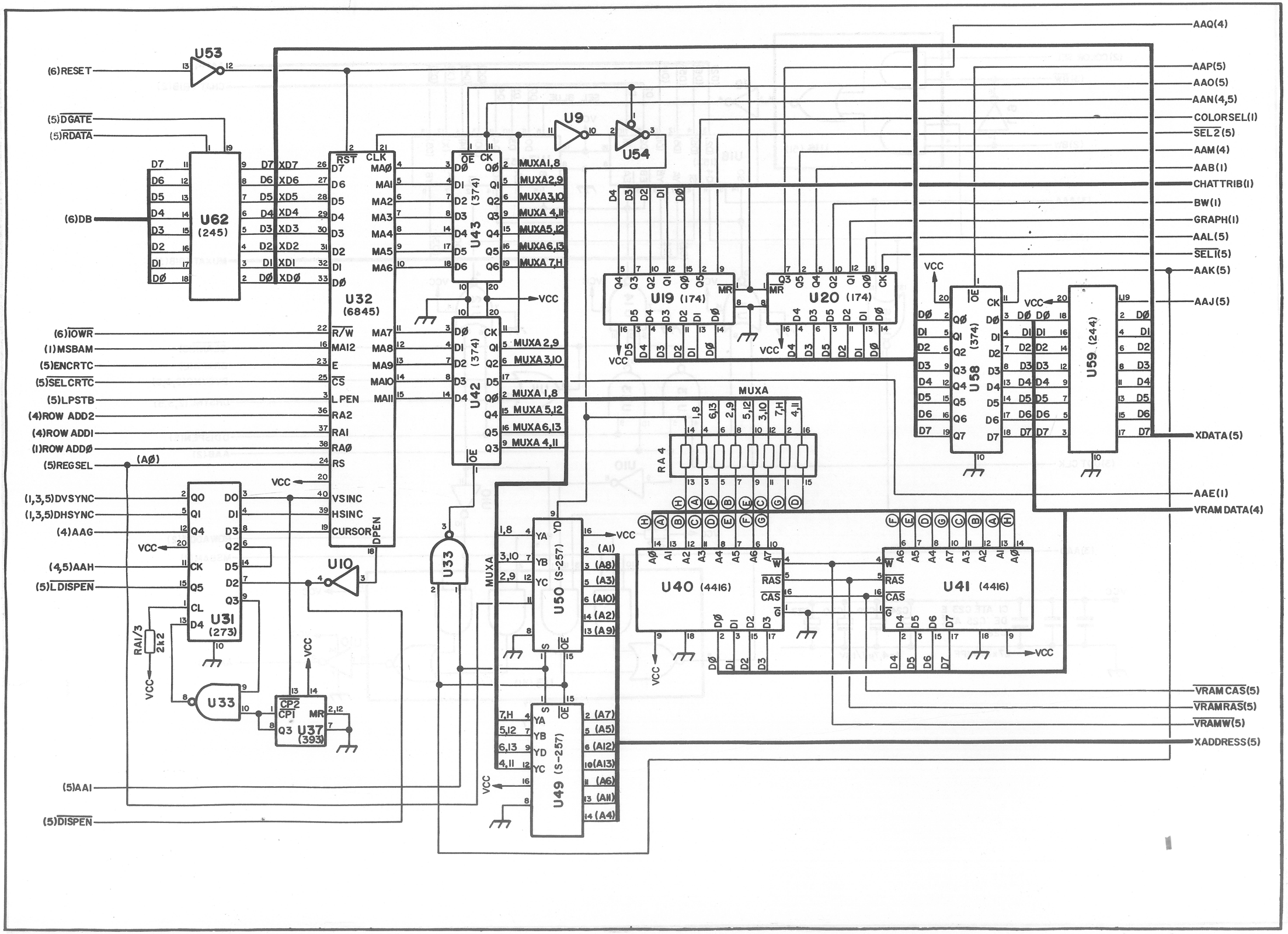
U17 7438 — U21 7438

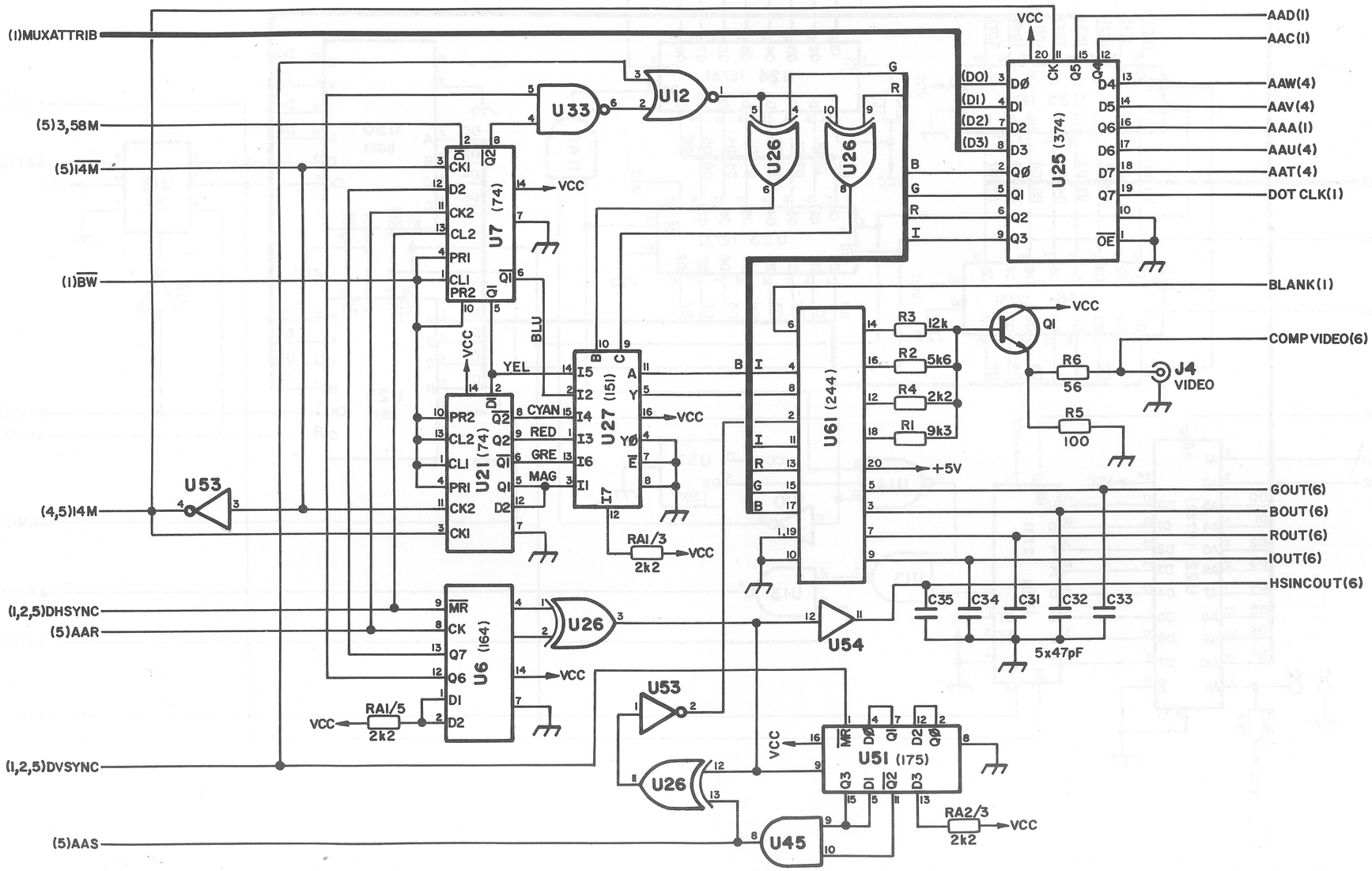
+DIRECTION — J3/18
+DIRECTION — J2/11
+STEP — J3/20
+STEP — J2/12
+SELECT HEAD 1 — J3/32
+SELECT HEAD — J2/18

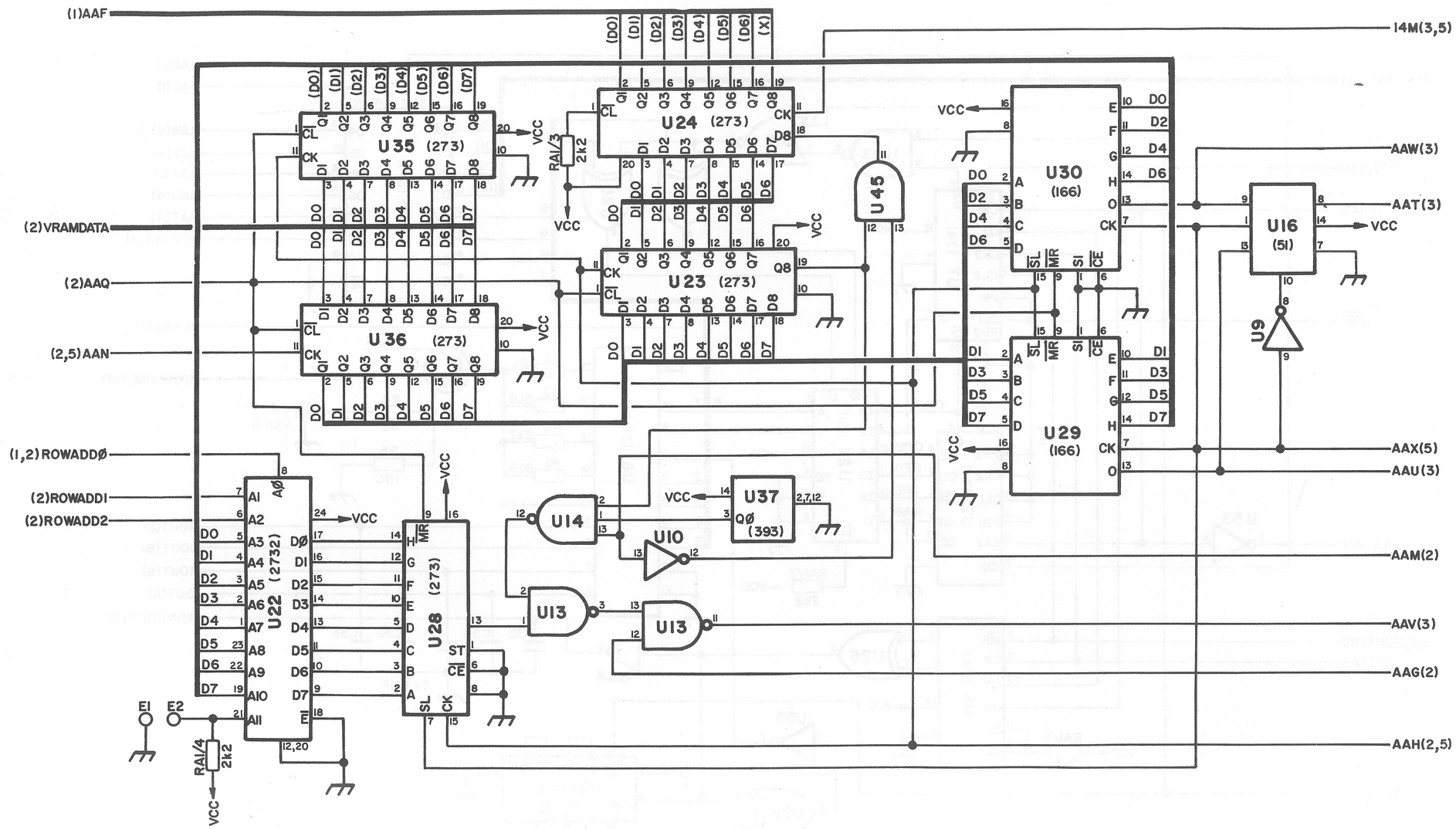


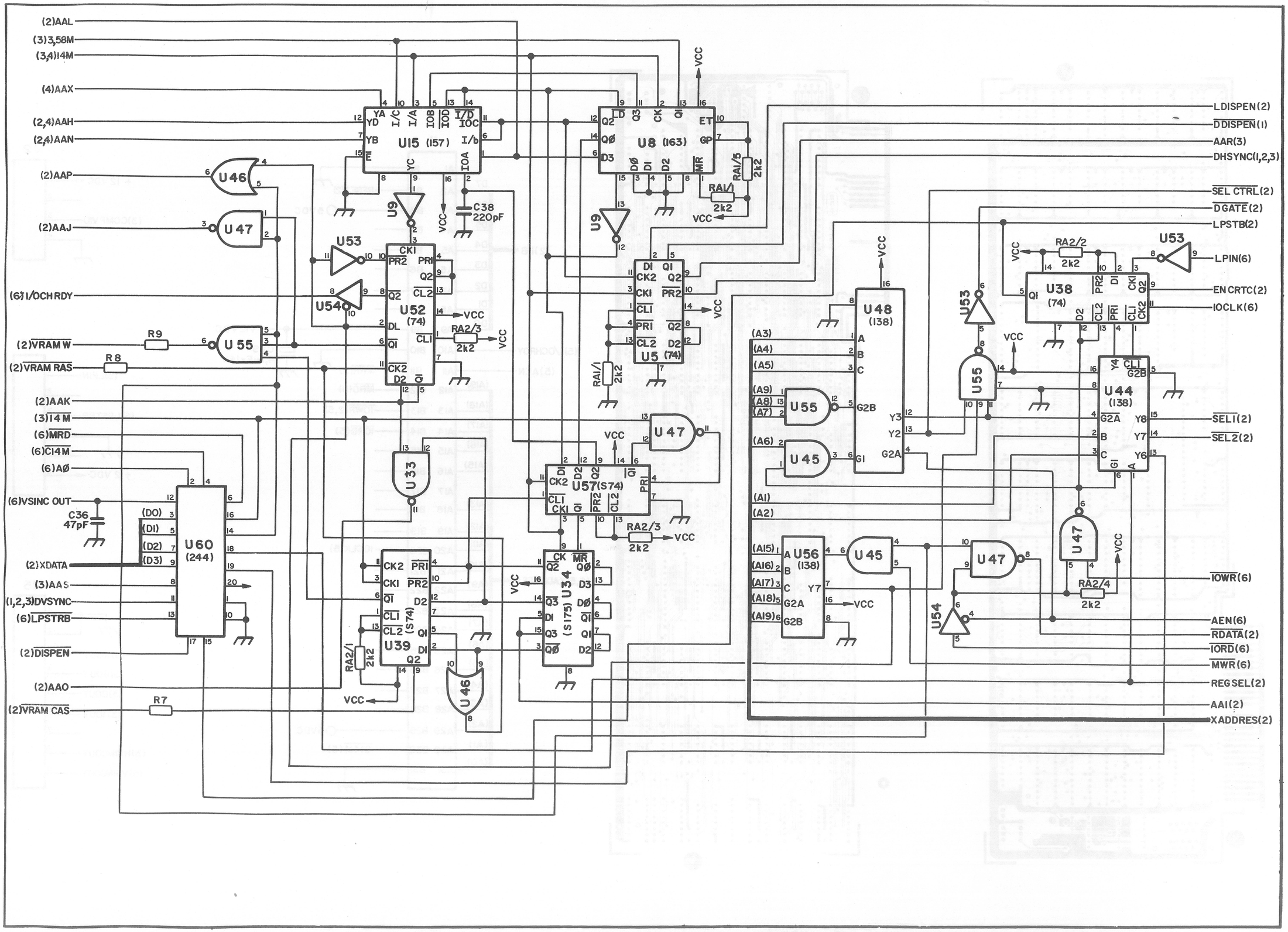

cce MR BRAS 39072-0

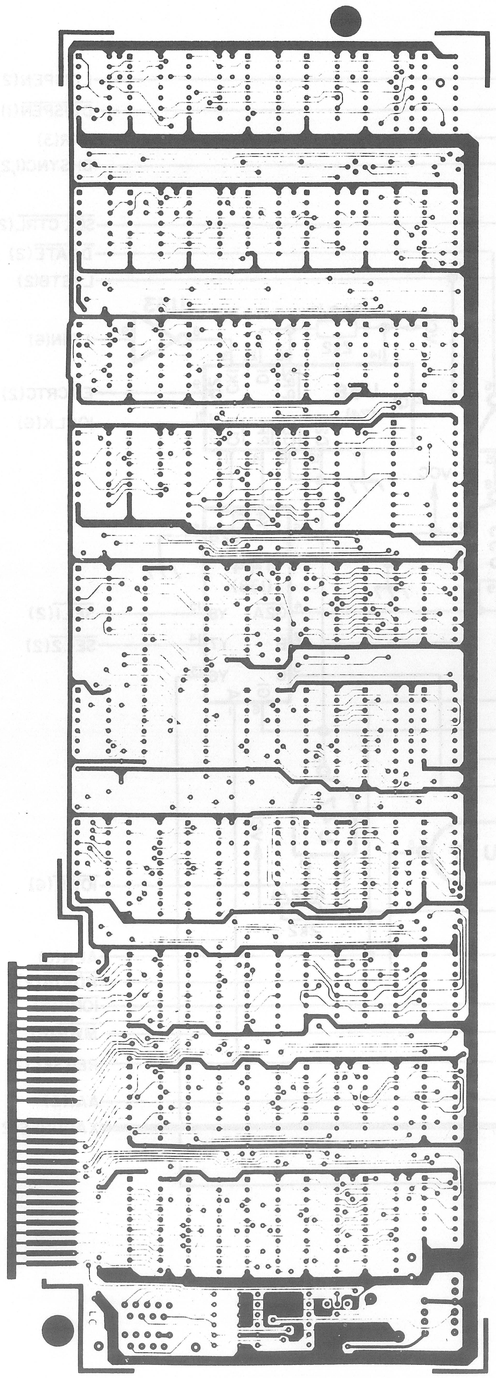

(2)COLOR SEL
(3)$\overline{BW}$
(2)BW
U9
U16 (51)
(3)AAA
(3)AAC
(3)DOT CLK
(3)AAD
U18 (153)
U17 (153)
SEL BLUE
VCC
AAF(4)
CHATTRIB(2)
MUXATTRIB(3)
U46
U11
U14
U12
U13
U13
U11
$\overline{BLANK}$(3)
GRAPH(2)
DVSYNC(2,3,5)
DHSYNC(2,3,5)
$\overline{DDISPEN}$(5)
AAB(2)
U10
U10
U10
RA1/2
2k2
ROWADDØ(2)
MSBAM(2)
U3(51)
AAE(2)
CI ATÉ C23 E DE C25 ATÉ C28
27x100KPF
C24
C29
C30
C37
4x4,7µF/16V

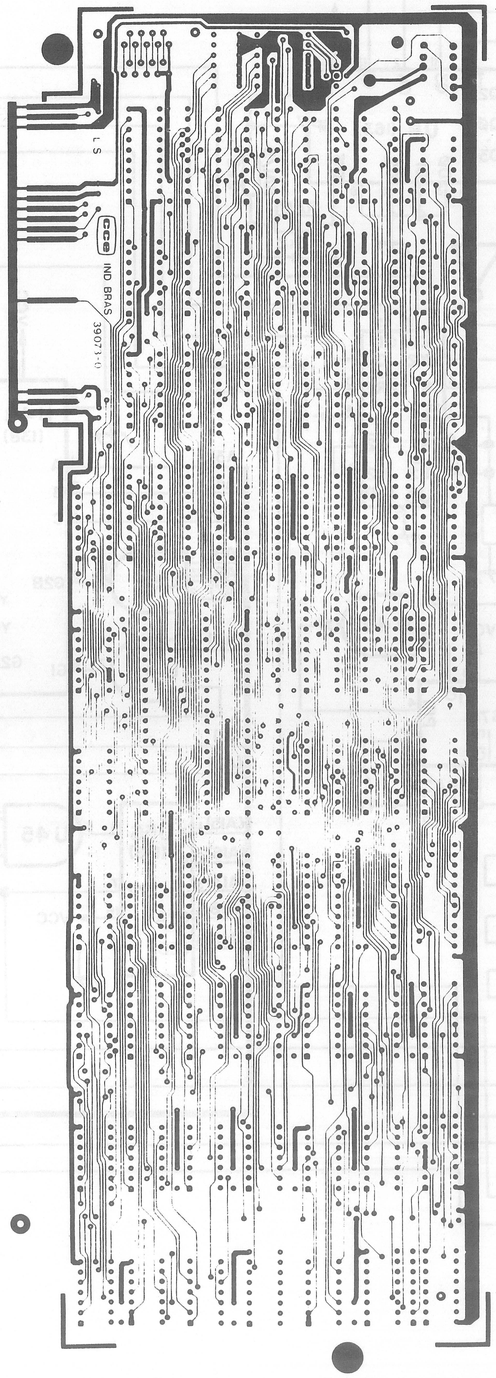

U53
(6)RESET
(5)DGATE
(5)RDATA
U62 (245)
(6)DB
U32 (6845)
(6)IOWR
(1)MSBAM
(5)ENCRTC
(5)SELCRTC
(5)LPSTB
(4)ROW ADD2
(4)ROW ADD1
(1)ROW ADD0
(5)REGSEL
(A0)
VCC
(1,3,5)DVSYNC
(1,3,5)DHSYNC
(4)AAG
(4,5)AAH
(5)LDISPEN
U31 (273)
RA1/3 2k2
U33
U37 (393)
U10
(5)AA1
(5)DISPEN
U9
U54
U43 (374)
U42 (374)
MUXA
RA 4
U33
U50 (S-257)
U49 (S-257)
U19 (174)
U20 (174)
U58 (374)
U59 (244)
U40 (4416)
U41 (4416)
AAQ(4)
AAP(5)
AAO(5)
AAN(4,5)
COLORSEL(1)
SEL2(5)
AAM(4)
AAB(1)
CHATTRIB(1)
BW(1)
GRAPH(1)
AAL(5)
SEL1(5)
AAK(5)
AAJ(5)
XDATA(5)
AAE(1)
VRAM DATA(4)
VRAM CAS(5)
VRAM RAS(5)
VRAM W(5)
XADDRESS(5)

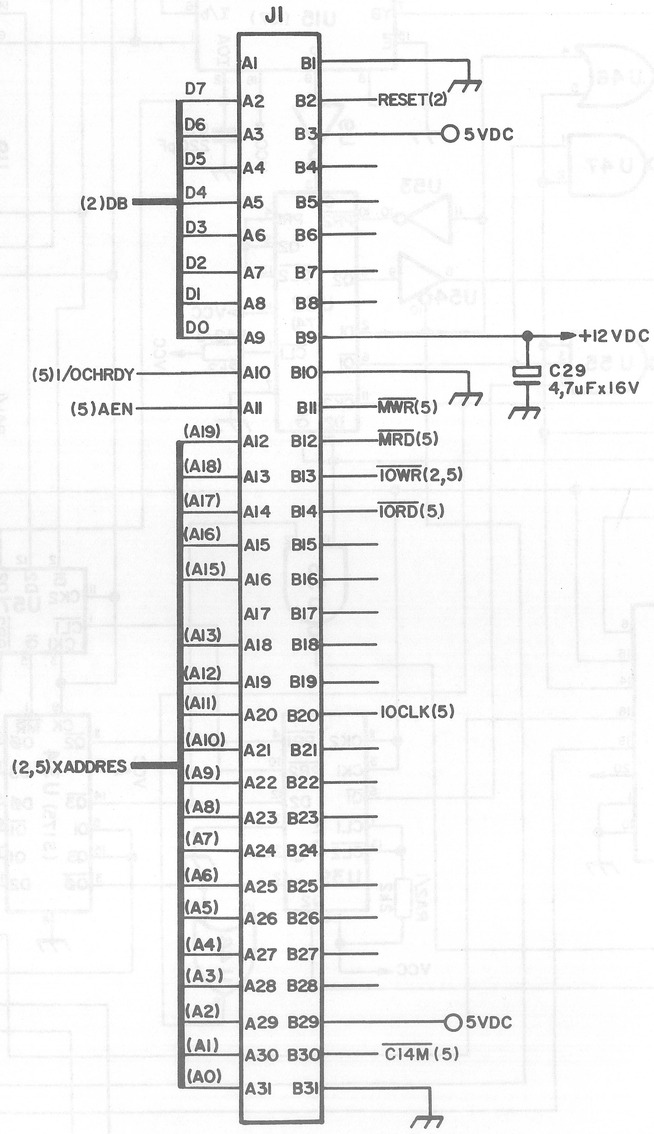

(1)MUXATTRIB
(5)3,58M
(5)I4M
(1)BW
(4,5)I4M
(1,2,5)DHSYNC
(5)AAR
(1,2,5)DVSYNC
(5)AAS
U33
U12
U26
U26
U25 (374)
(DO)
(DI)
(D2)
(D3)
AAD(I)
AAC(I)
AAW(4)
AAV(4)
AAA(I)
AAU(4)
AAT(4)
DOT CLK(I)
BLANK(I)
COMP VIDEO(6)
GOUT(6)
BOUT(6)
ROUT(6)
IOUT(6)
HSINCOUT(6)
U7 (74)
U21 (74)
U27 (151)
U61 (244)
U6 (164)
U53
U54
U51 (175)
U45
U26
U26
U53
R3 12k
R2 5k6
R4 2k2
RI 9k3
R6 56
R5 100
J4 VIDEO
Q1
+5V
VCC
BLU
YEL
CYAN
RED
GRE
MAG
RAI/3 2k2
RAI/5 2k2
RA2/3 2k2
C35
C34
C31
C32
C33
5x47pF

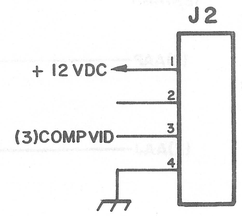

(1)AAF
(2)VRAMDATA
(2)AAQ
(2,5)AAN
(1,2)ROWADDØ
(2)ROWADD1
(2)ROWADD2
14M(3,5)
AAW(3)
AAT(3)
AAX(5)
AAU(3)
AAM(2)
AAV(3)
AAG(2)
AAH(2,5)
U35 (273)
U24 (273)
U23 (273)
U36 (273)
U30 (166)
U29 (166)
U16 (51)
U9
U45
U22 (2732)
U28 (273)
U37 (393)
U14
U10
U13
U13
RA1/3 2k2
RA1/4 2k2
VCC
E1
E2

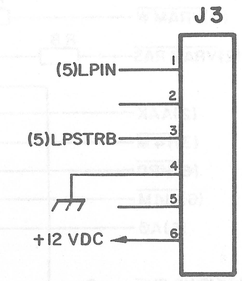

(2)AAL
(3)3,58M
(3,4)14M
(4)AAX
(2,4)AAH
(2,4)AAN
(2)AAP
(2)AAJ
(6)I/OCH RDY
(2)VRAM W
(2)VRAM RAS
(2)AAK
(3)14M
(6)MRD
(6)C14M
(6)AØ
(6)VSINC OUT
(2)XDATA
(3)AAS
(1,2,3)DVSYNC
(6)LPSTRB
(2)DISPEN
(2)AAO
(2)VRAM CAS
U15 (157)
U8 (163)
U9
U53
U54
U52 (74)
U5 (74)
U55
U46
U47
U33
U57(S74)
U34 (S175)
U39 (S74)
U60 (244)
U48 (138)
U45
U56 (138)
U38 (74)
U44 (138)
C38 220pF
C36 47pF
R9
R8
R7
RA2/3 2k2
RA2/1 2k2
RA2/5 2k2
RA2/2 2k2
RA2/4 2k2
VCC
LDISPEN(2)
DDISPEN(1)
AAR(3)
DHSYNC(1,2,3)
SEL CTRL(2)
DGATE(2)
LPSTB(2)
LPIN(6)
ENCRTC(2)
IOCLK(6)
SELI(2)
SEL2(2)
IOWR(6)
AEN(6)
RDATA(2)
IORD(6)
MWR(6)
REGSEL(2)
AAI(2)
XADDRES(2)

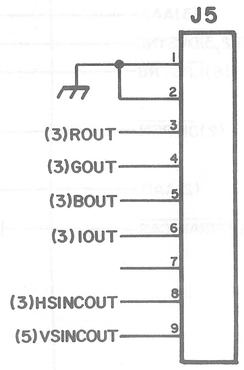


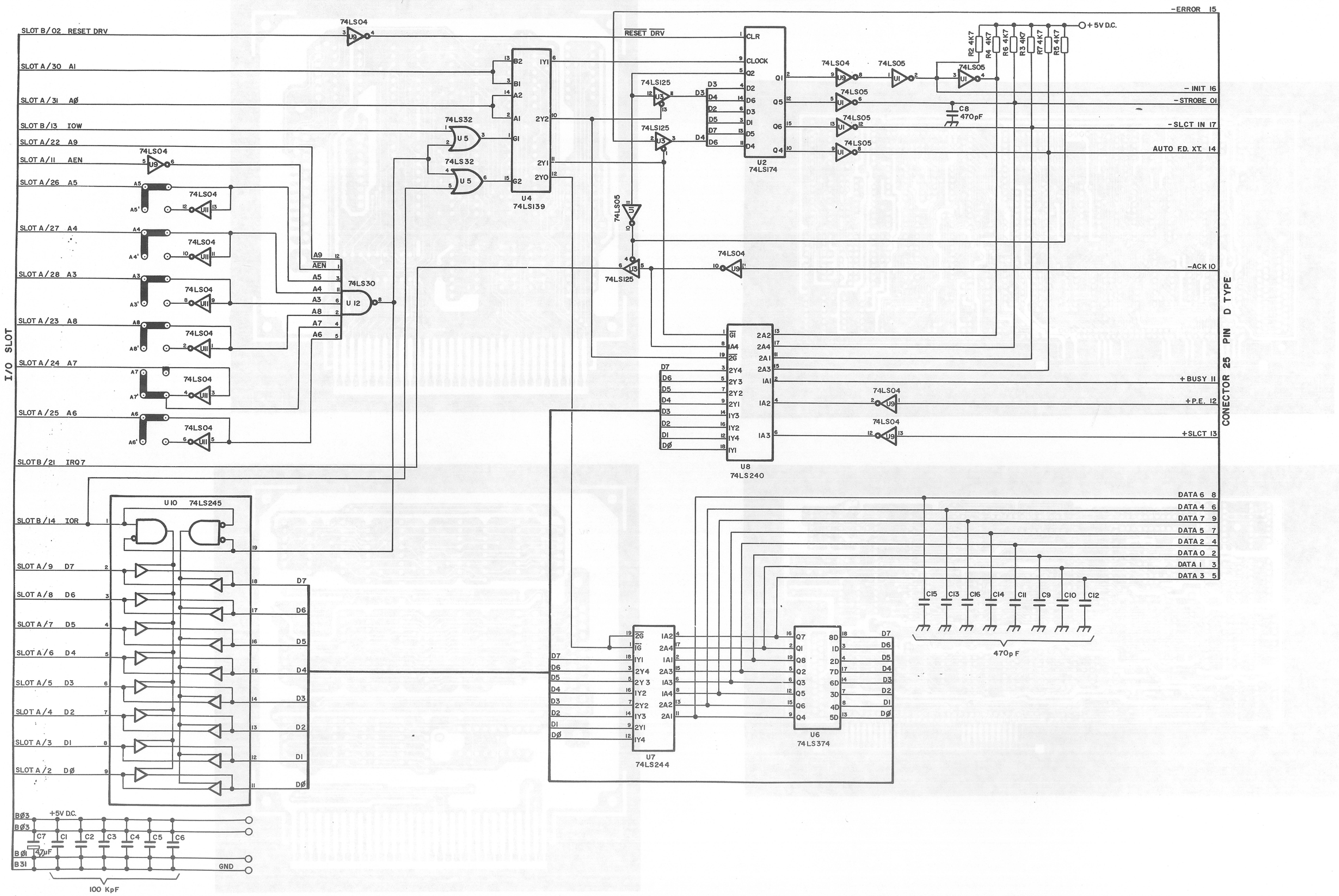

L S
CCE
IND BRAS
3907-1-U

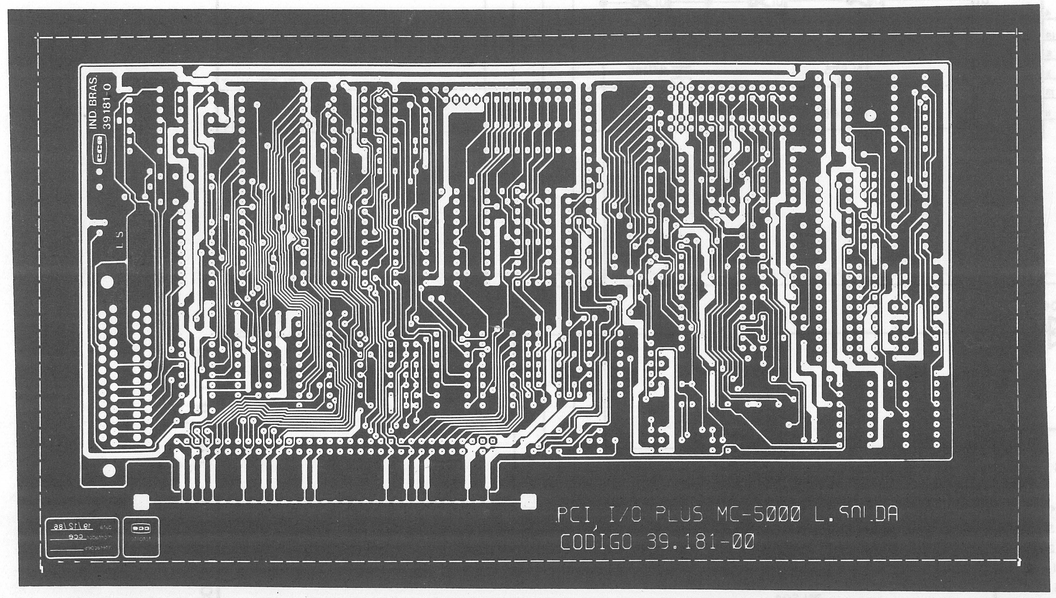

J1
A1 B1
D7 A2 B2
D6 A3 B3
D5 A4 B4
(2)DB D4 A5 B5
D3 A6 B6
D2 A7 B7
DI A8 B8
DO A9 B9
(5)I/OCHRDY A10 B10
(5)AEN A11 B11
(A19) A12 B12
(A18) A13 B13
(A17) A14 B14
(A16) A15 B15
(A15) A16 B16
A17 B17
(A13) A18 B18
(A12) A19 B19
(A11) A20 B20
(A10) A21 B21
(2,5)XADDRES (A9) A22 B22
(A8) A23 B23
(A7) A24 B24
(A6) A25 B25
(A5) A26 B26
(A4) A27 B27
(A3) A28 B28
(A2) A29 B29
(A1) A30 B30
(A0) A31 B31
RESET(2)
5VDC
+12VDC
C29
4,7uFx16V
MWR(5)
MRD(5)
IOWR(2,5)
IORD(5)
IOCLK(5)
5VDC
C14M(5)

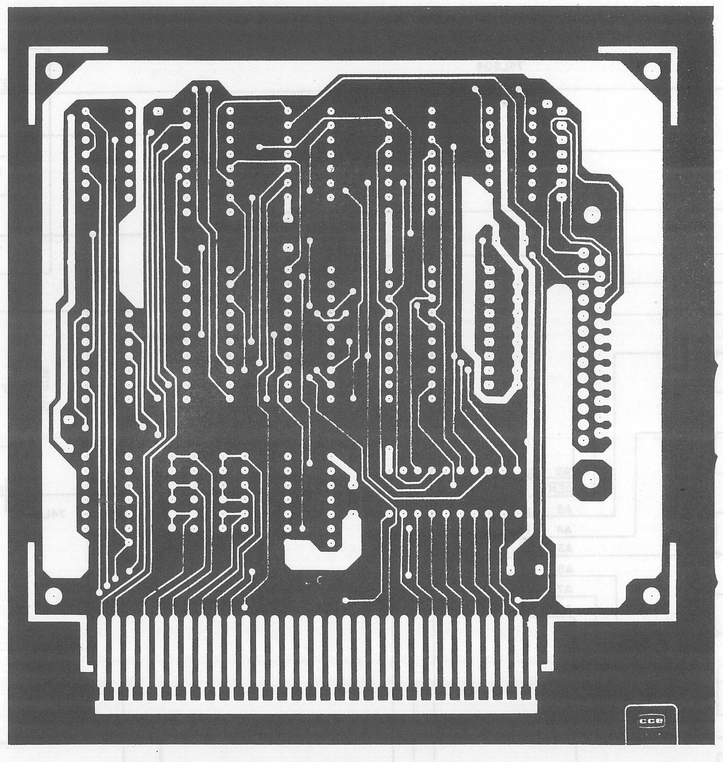

J2
+12 VDC 1
2
(3)COMPVID 3
4

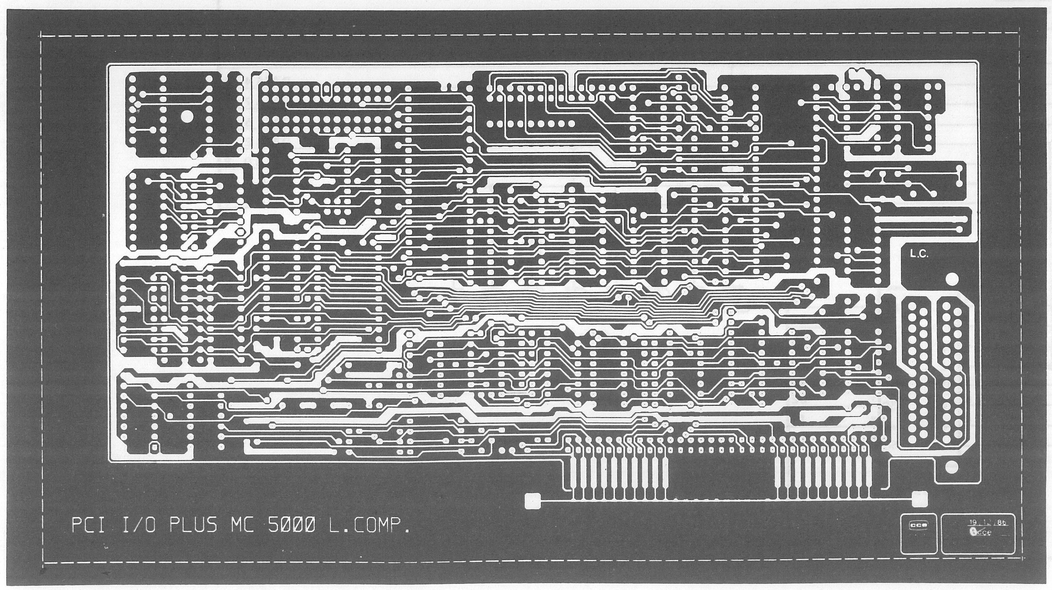

J3
(5)LPIN 1
2
(5)LPSTRB 3
4
5
+12 VDC 6

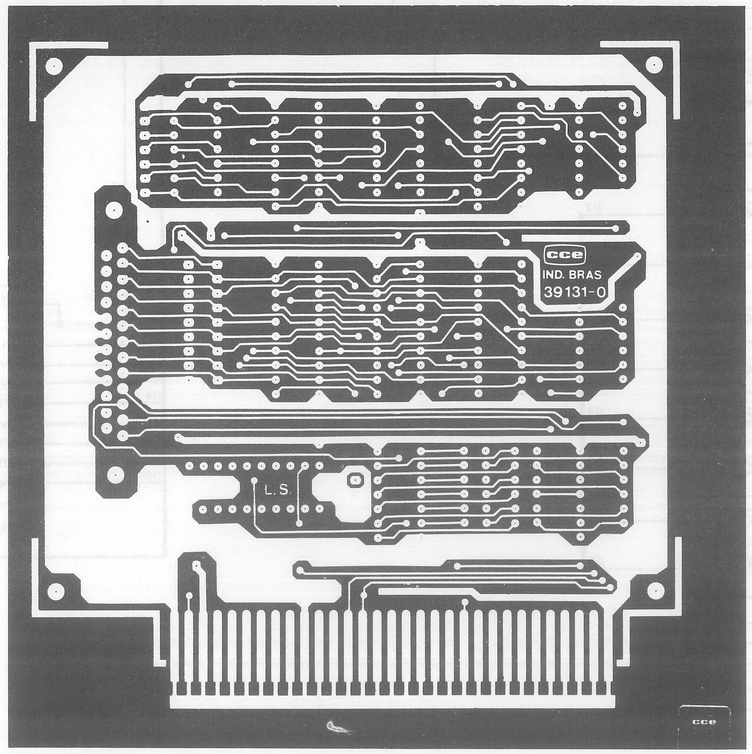

J5
1
2
(3)ROUT 3
(3)GOUT 4
(3)BOUT 5
(3)IOUT 6
7
(3)HSINCOUT 8
(5)VSINCOUT 9

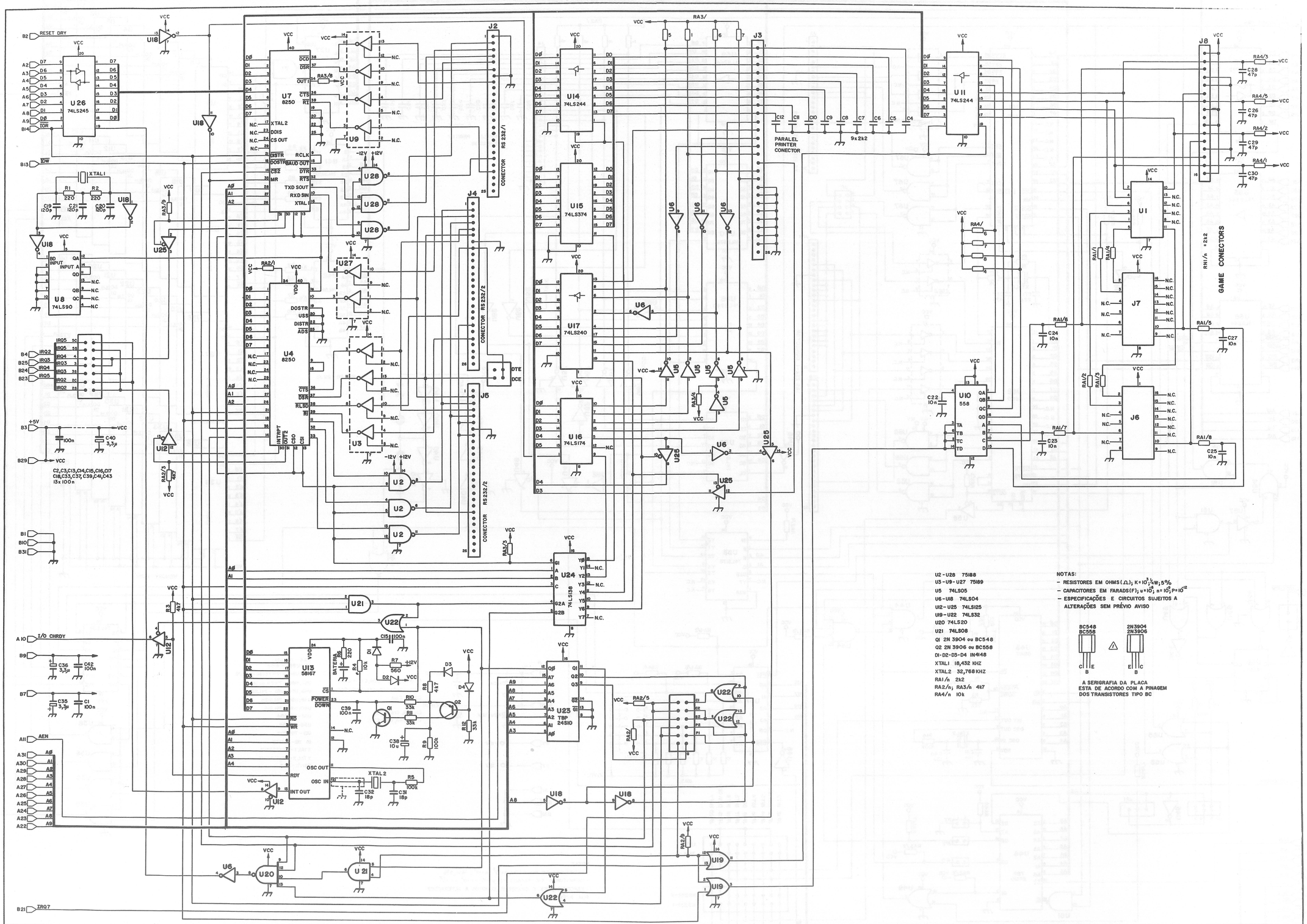

I/O SLOT
SLOT B/02 RESET DRV
SLOT A/30 A1
SLOT A/31 AØ
SLOT B/13 IOW
SLOT A/22 A9
SLOT A/11 AEN
SLOT A/26 A5
SLOT A/27 A4
SLOT A/28 A3
SLOT A/23 A8
SLOT A/24 A7
SLOT A/25 A6
SLOT B/21 IRQ7
SLOT B/14 IOR
SLOT A/9 D7
SLOT A/8 D6
SLOT A/7 D5
SLOT A/6 D4
SLOT A/5 D3
SLOT A/4 D2
SLOT A/3 D1
SLOT A/2 DØ
BØ3
BØ3
BØI
B3I
+5V D.C.
C7 C1 C2 C3 C4 C5 C6
4.7uF
GND
100 KpF
74LS04
74LS32
74LS30
74LS125
74LS245
U4 74LS139
U2 74LS174
U8 74LS240
U6 74LS374
U7 74LS244
U10 74LS245
U12
RESET DRV
+5V D.C.
R2 4K7
R4 4K7
R6 4K7
R3 4K7
R7 4K7
R5 4K7
C8 470pF
-ERROR 15
- INIT 16
-STROBE 01
-SLCT IN 17
AUTO F.D. XT. 14
-ACK 10
+BUSY 11
+P.E. 12
+SLCT 13
CONECTOR 25 PIN D TYPE
DATA 6 8
DATA 4 6
DATA 7 9
DATA 5 7
DATA 2 4
DATA 0 2
DATA 1 3
DATA 3 5
C15 C13 C16 C14 C11 C9 C10 C12
470p F


IND BRAS
39181 0
L.S.
PCI I/O PLUS MC-5000 L.SOLDA
CODIGO 39.181-00

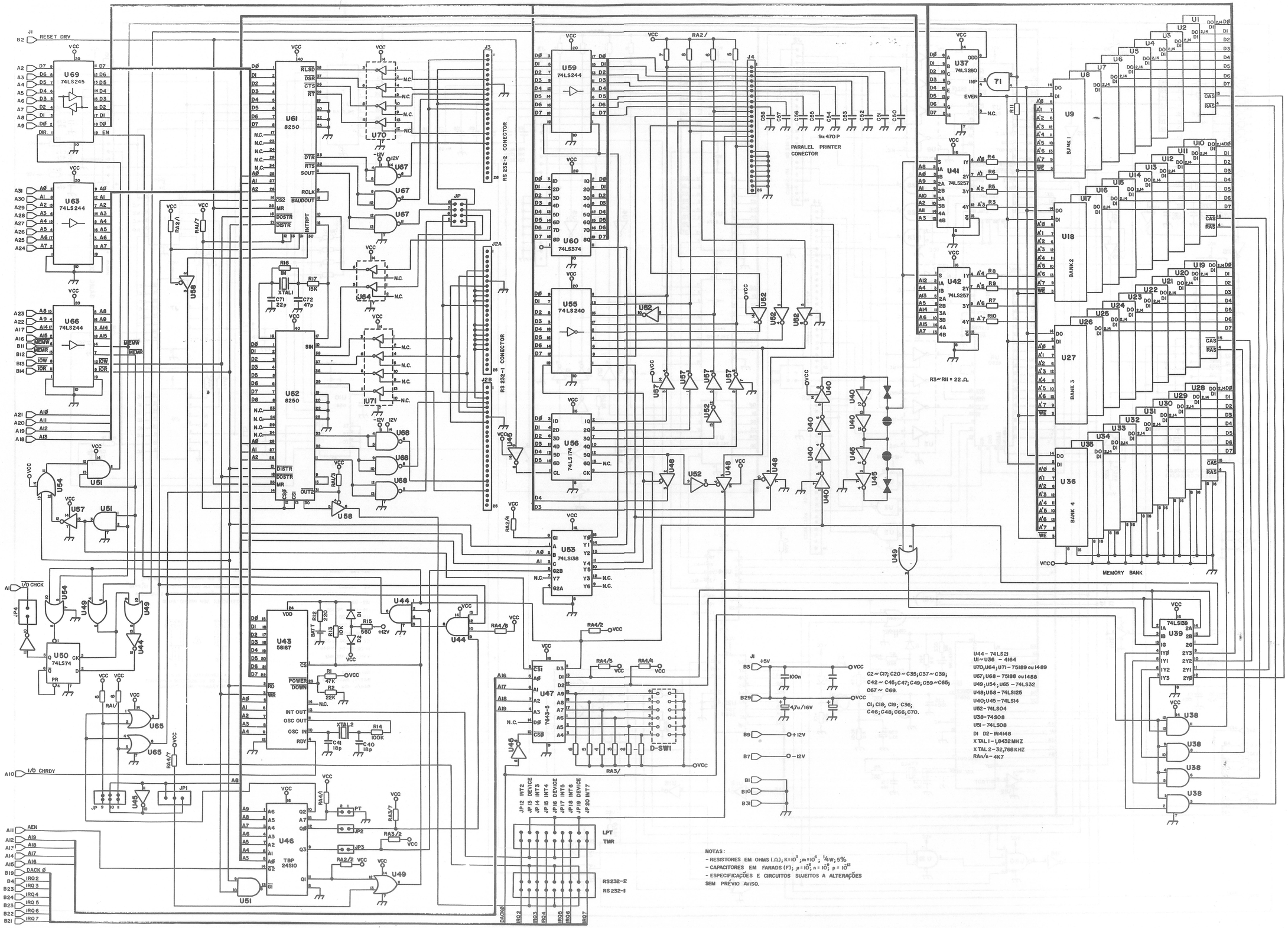

cce

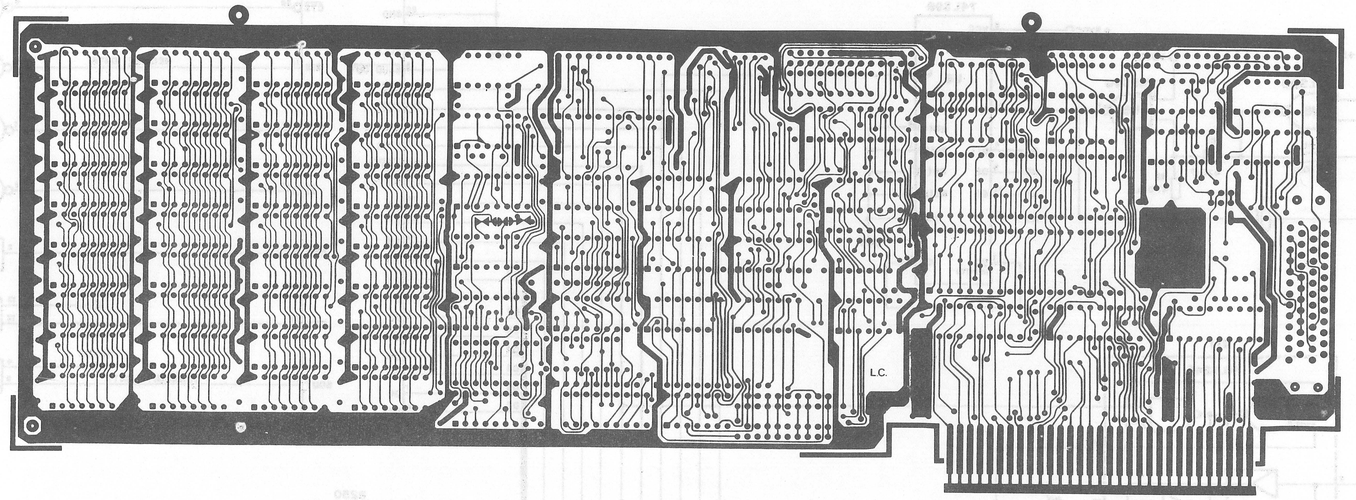

L.C.
PCI I/O PLUS MC 5000 L.COMP.
cce

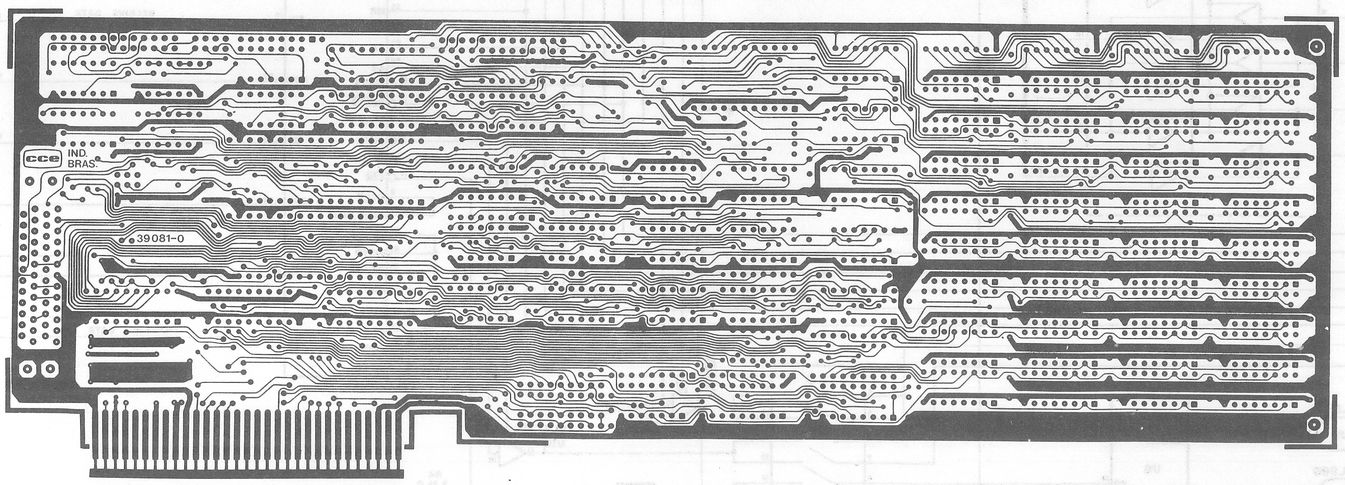

cce
IND. BRAS
39131-0
L.S.
cce

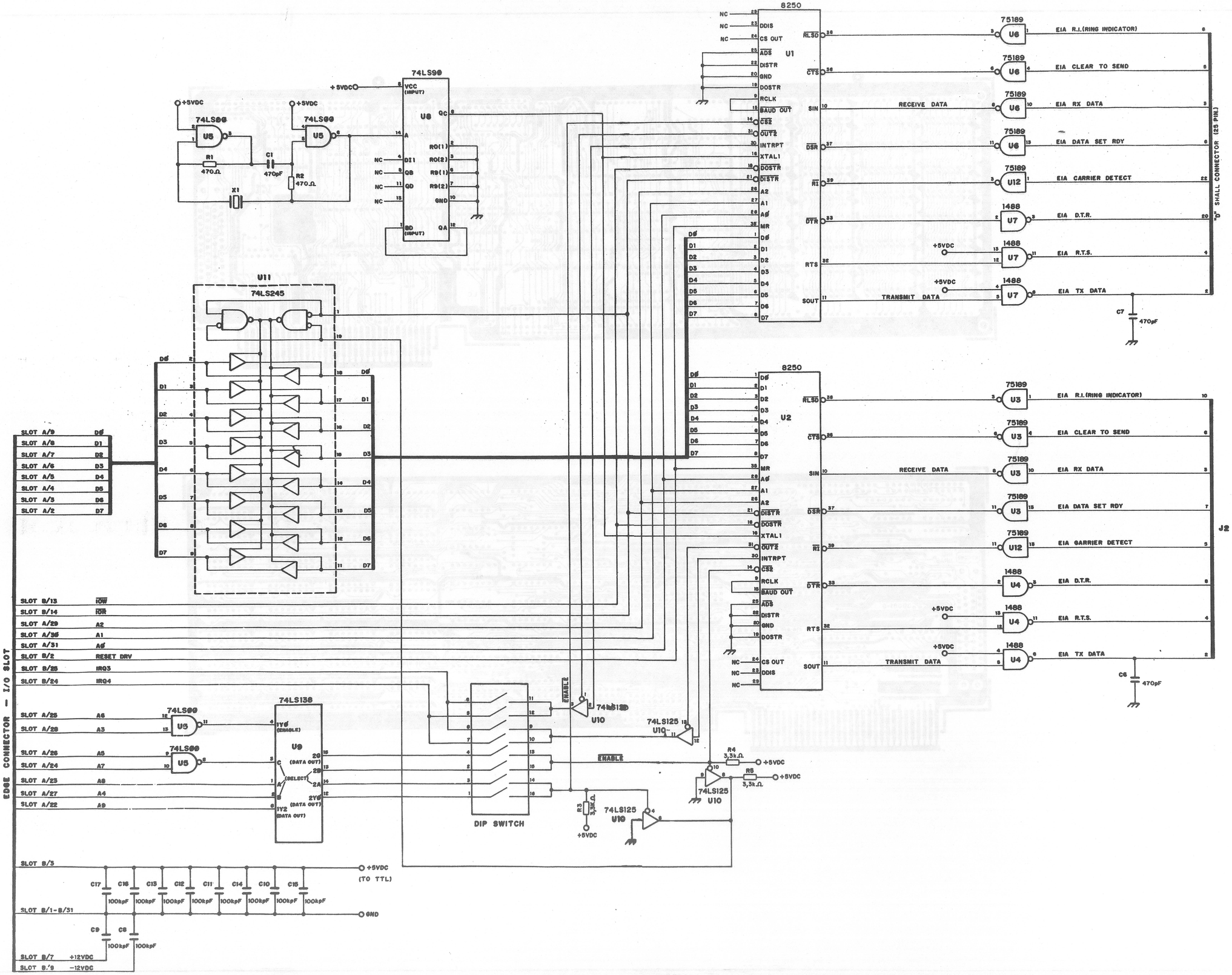

U2 - U28 75188
U3 - U9 - U27 75189
U5 74LS05
U6 - U18 74LS04
U12 - U25 74LS125
U19 - U22 74LS32
U20 74LS20
U21 74LS08
Q1 2N 3904 ou BC548
Q2 2N 3906 ou BC558
DI-D2-D3-D4 IN4148
XTAL1 18,432 KHZ
XTAL2 32,768 KHZ
RA1/n 2k2
RA2/n; RA3/n 4k7
RA4/n 10k
NOTAS:
- RESISTORES EM OHMS(Ω); K=10³; M=10⁶; 5%
- CAPACITORES EM FARADS(F); u=10⁻⁶; n=10⁻⁹; P=10⁻¹²
- ESPECIFICAÇÕES E CIRCUITOS SUJEITOS A ALTERAÇÕES SEM PRÉVIO AVISO
BC548 BC558
2N3904 2N3906
A SERIGRAFIA DA PLACA ESTA DE ACORDO COM A PINAGEM DOS TRANSISTORES TIPO BC
GAME CONECTORS
RN1/n =2k2
PARALEL PRINTER CONECTOR
CONECTOR RS 232/1
CONECTOR RS232/2
CONECTOR RS232/2
RESET DRV
I/O CHRDY
AEN
IRQ7
XTAL1
XTAL2
BATERIA
DTE
DCE
U1
U2
U3
U4
U5
U6
U7
U8
U9
U10
U11
U12
U13
U14
U15
U16
U17
U18
U19
U20
U21
U22
U23
U24
U25
U26
U27
U28
J1
J2
J3
J4
J5
J6
J7
J8

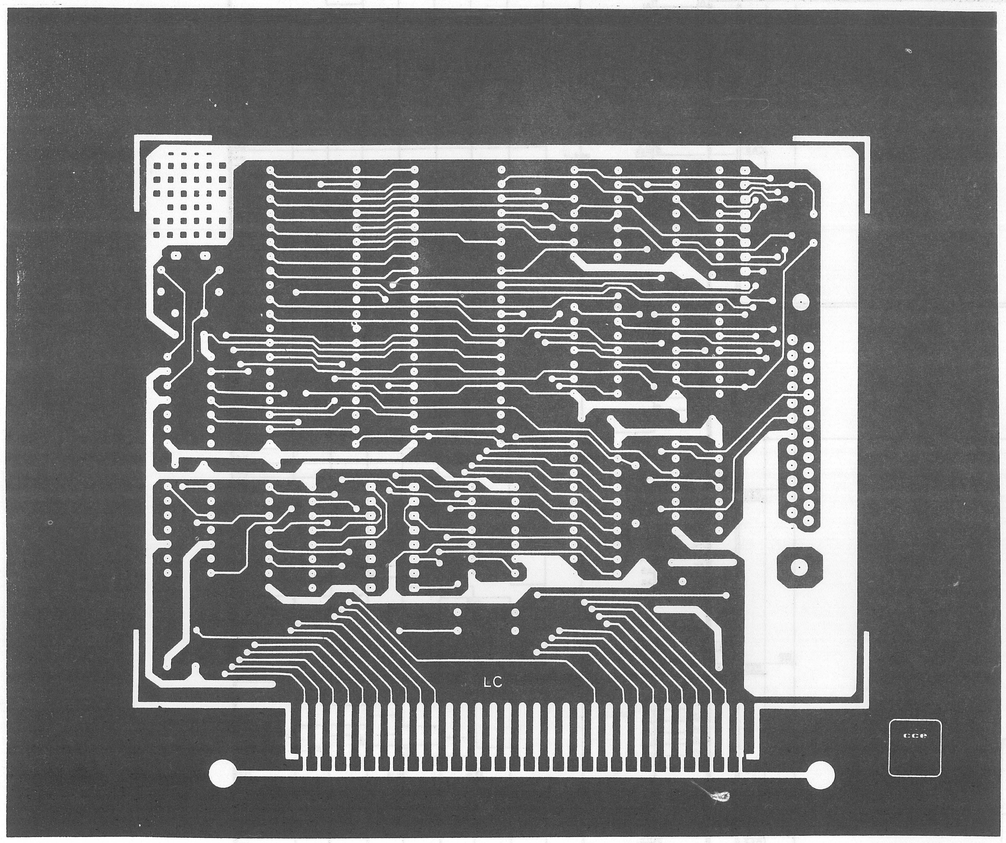
5000 XT

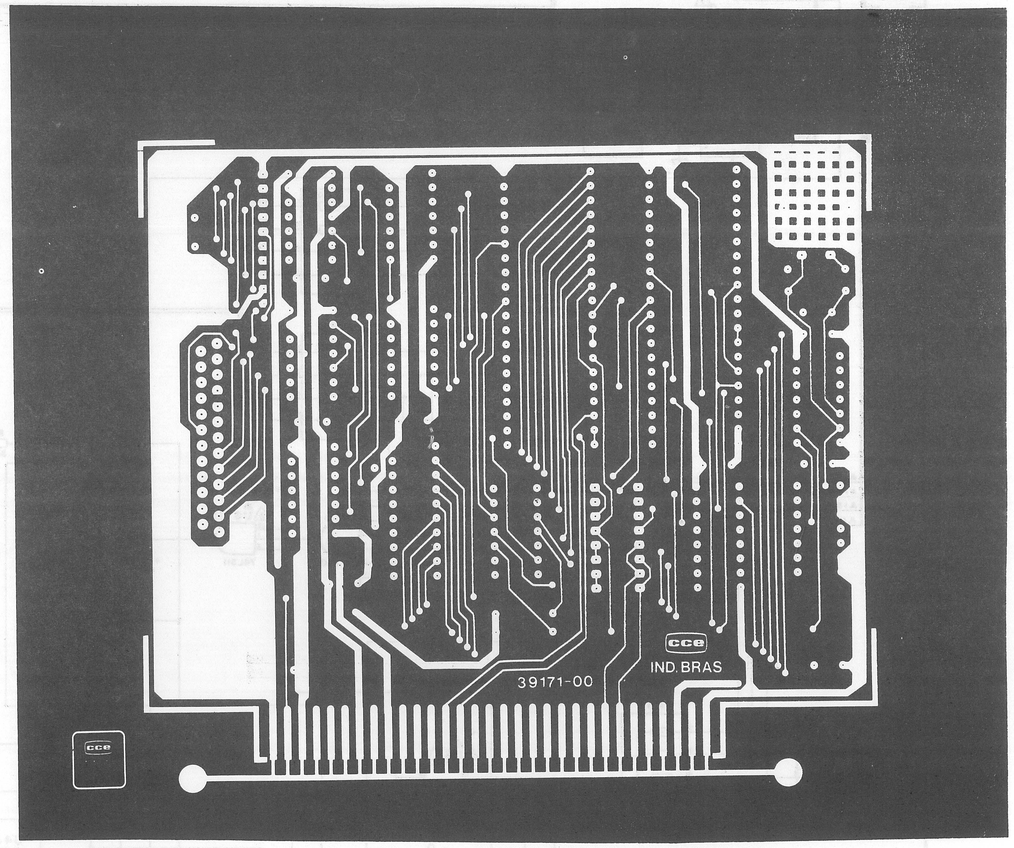

RESET DRV
I/O CHCK
I/O CHRDY
AEN
DACK Ø
IRQ 2
IRQ 3
IRQ 4
IRQ 5
IRQ 6
IRQ 7
U69 74LS245
U63 74LS244
U66 74LS244
U61 8250
U62 8250
U70
U71
U64
U67
U68
U58
U54
U51
U57
U65
U49
U44
U50 74LS74
U43 5816?
U46 TBP 24S10
U45
U48
U52
U53 74LS138
U55 74LS240
U56 74LS174
U59 74LS244
U60 74LS374
U47 7643-5
D-SW1
U37 74LS280
U41 74LS257
U42 74LS257
U9
U18
U27
U36
U39 74LS139
U38
U40
U45
U49
U1 U2 U3 U4 U5 U6 U7 U8 U10 U11 U12 U13 U14 U15 U16 U17 U19 U20 U21 U22 U23 U24 U25 U26 U28 U29 U30 U31 U32 U33 U34 U35
BANK 1
BANK 2
BANK 3
BANK 4
MEMORY BANK
RS 232-2 CONECTOR
RS 232-1 CONECTOR
PARALEL PRINTER CONECTOR
9x470 P
JP
JP1
JP2
JP3
JP4
J1
J2A
J2B
J3
J4
RA1/
RA2/
RA3/
RA4/
RA5/
RA6/
RA7/
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12
R13
R14
R15
R16
R17
XTAL1
XTAL2
C71 22p
C72 47p
C41 18p
C40 18p
PT
LPT
TMR
RS232-2
RS232-1
JP12 INT2
JP13 DEVICE
JP14 INT3
JP15 INT4
JP16 DEVICE
JP17 INT5
JP18 INT6
JP19 DEVICE
JP20 INT7
+5V
+12V
-12V
VCC
MEMW
MEMR
IOW
IOR
R3=R11=22Ω
C2~C17; C20~C35; C37~C39; C42~C45; C47; C49; C59~C65; C67~C69.
C1; C18; C19; C36; C46; C48; C66; C70.
U44 - 74LS21
U1~U36 - 4164
U70; U64; U71 - 75189 ou 1489
U67; U68 - 75188 ou 1488
U49; U54; U65 - 74LS32
U48; U58 - 74LS125
U40; U45 - 74LS14
U52 - 74LS04
U38 - 74S08
U51 - 74LS08
DI D2 - IN4148
XTAL 1 - 1,8432 MHZ
XTAL 2 - 32,768 KHZ
RAn/n - 4K7
NOTAS:
- RESISTORES EM OHMS (Ω); K=10³ ; m=10⁶ ; 1/4W; 5%
- CAPACITORES EM FARADS (F); μ=10⁻⁶; n=10⁻⁹; p=10⁻¹²
- ESPECIFICAÇÕES E CIRCUITOS SUJEITOS A ALTERAÇÕES SEM PRÉVIO AVISO.

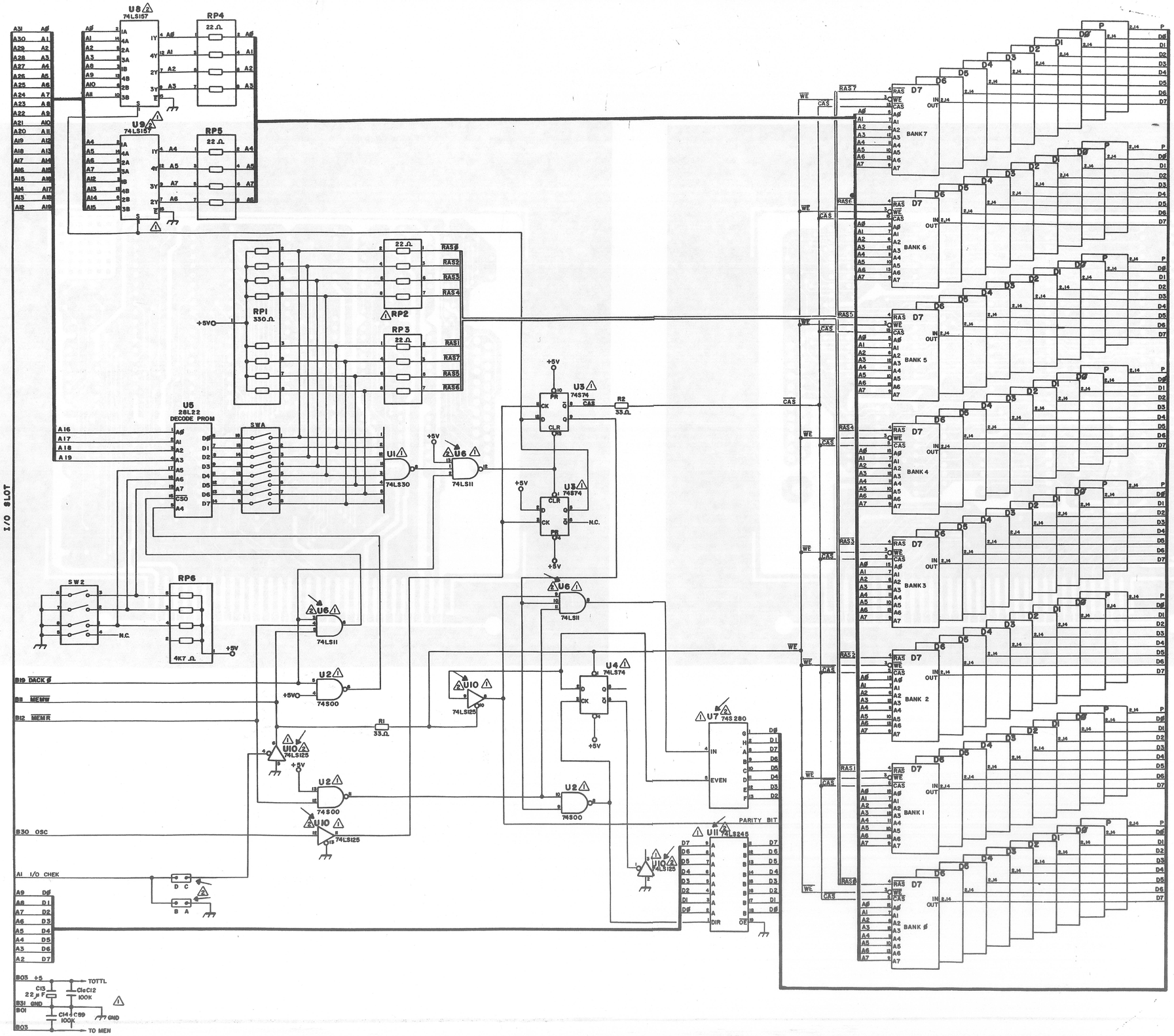

L.C.

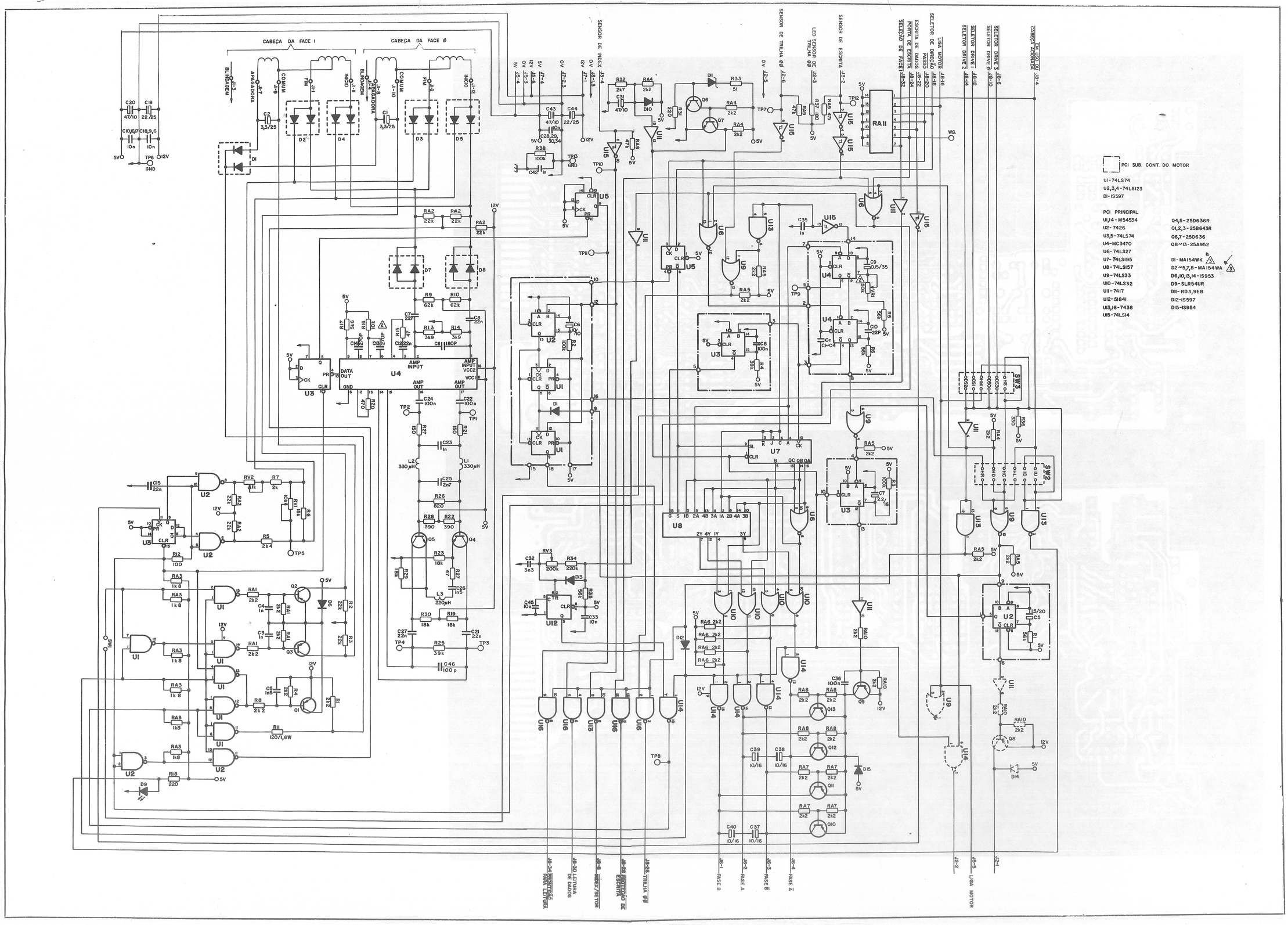

IND.
BRAS.
39081-0

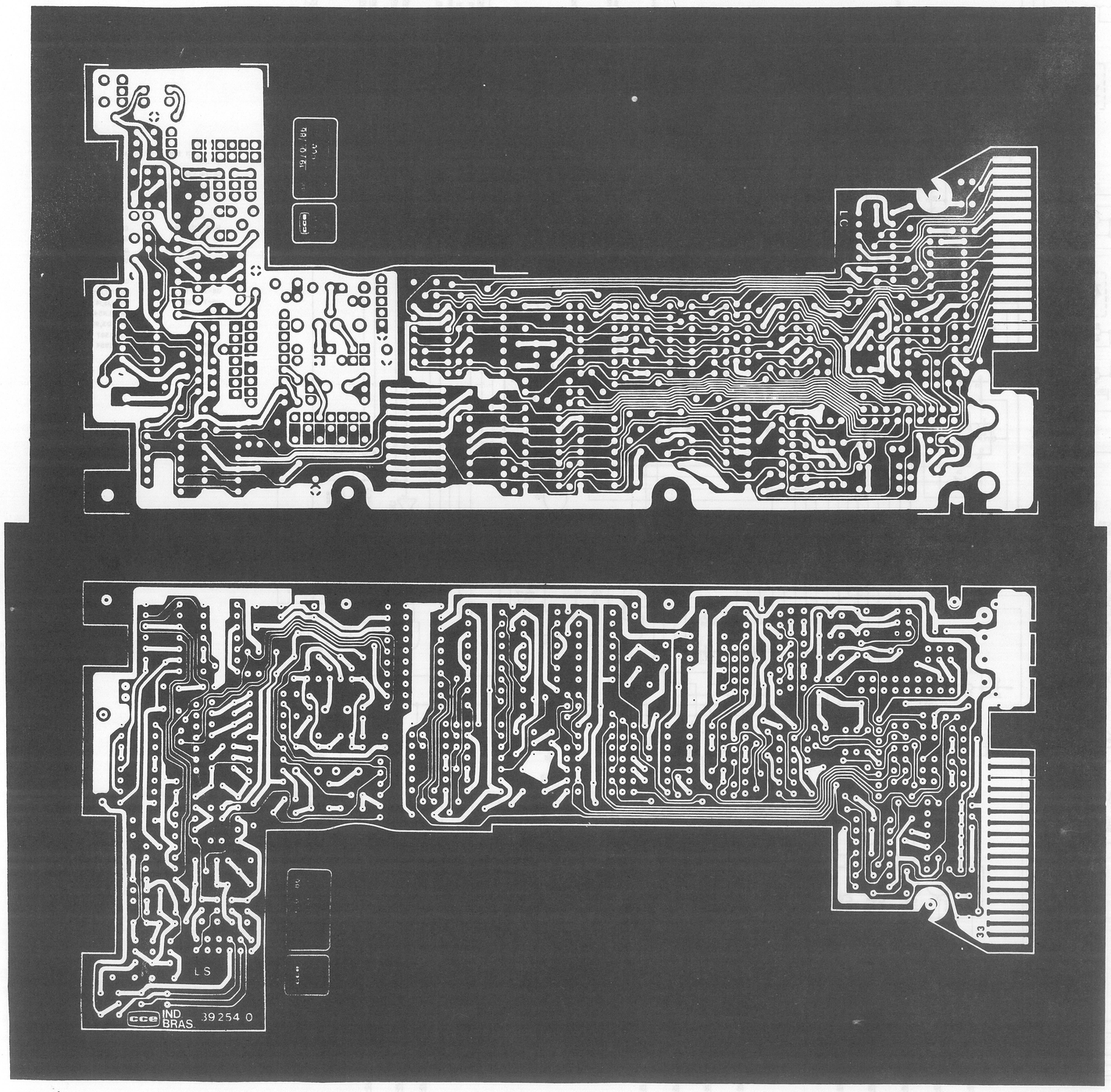

8250
U1
NC
NC
NC
DDIS
CS OUT
ADS
DISTR
GND
DOSTR
RCLK
BAUD OUT
CS2
OUT2
INTRPT
XTAL1
DOSTR
DISTR
A2
A1
A0
MR
RLSD
CTS
SIN
DSR
RI
DTR
RTS
SOUT
RECEIVE DATA
TRANSMIT DATA
75189
1488
U6
U12
U7
EIA R.I.(RING INDICATOR)
EIA CLEAR TO SEND
EIA RX DATA
EIA DATA SET RDY
EIA CARRIER DETECT
EIA D.T.R.
EIA R.T.S.
EIA TX DATA
+5VDC
C7
470pF
"D" SHALL CONNECTOR (25 PIN)
J2
74LS90
U8
VCC (INPUT)
GND (INPUT)
R0(1)
R0(2)
R9(1)
R9(2)
QA
QB
QC
QD
U5
R1
470Ω
R2
470Ω
C1
470pF
X1
U11
74LS245
SLOT A/9
SLOT A/8
SLOT A/7
SLOT A/6
SLOT A/5
SLOT A/4
SLOT A/3
SLOT A/2
SLOT B/13
SLOT B/14
SLOT A/29
SLOT A/35
SLOT A/31
SLOT B/2
SLOT B/25
SLOT B/24
IOW
IOR
A2
A1
A0
RESET DRV
IRQ3
IRQ4
EDGE CONNECTOR — I/O SLOT
74LS138
U9
(ENABLE)
(SELECT)
(DATA OUT)
SLOT A/25
SLOT A/26
SLOT A/24
SLOT A/23
SLOT A/27
SLOT A/22
A6
A5
A7
A8
A4
A9
DIP SWITCH
74LS125
U10
ENABLE
R3
3,3k.Ω.
R4
3,3k.Ω.
R5
3,3k.Ω.
SLOT B/3
+5VDC
(TO TTL)
C17
C16
C13
C12
C11
C14
C10
C15
100kpF
SLOT B/1-B/31
GND
C9
C8
SLOT B/7
+12VDC
SLOT B/9
-12VDC

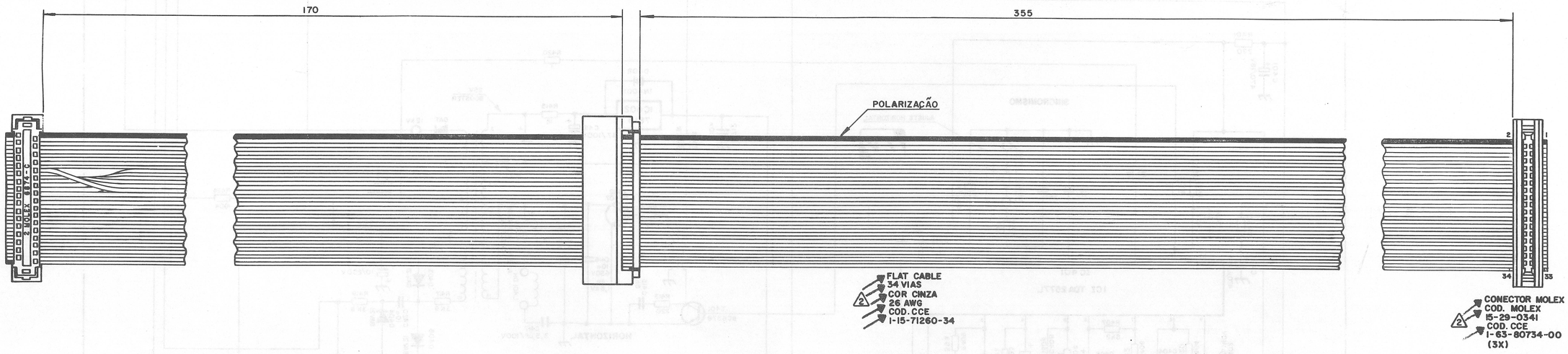

LC
cce


39171-00
cce
IND. BRAS
cce

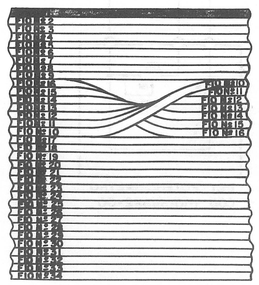

I/O SLOT
A31 A30 A29 A28 A27 A26 A25 A24 A23 A22 A21 A20 A19 A18 A17 A16 A15 A14 A13 A12
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19
U8 74LS157
U9 74LS157
RP4 22Ω
RP5 22Ω
RP1 330Ω
+5VO
RP2 22Ω
RP3 22Ω
RAS0 RAS2 RAS3 RAS4 RAS1 RAS7 RAS5 RAS6
U5 28L22 DECODE PROM
SWA
SW2
RP6 4K7Ω
U1 74LS30
U6 74LS11
U3 74S74
R2 33Ω
R1 33Ω
U4 74LS74
U10 74LS125
U2 74S00
U7 74S280
U11 74LS245
PARITY BIT
WE CAS RAS7 RAS6 RAS5 RAS4 RAS3 RAS2 RAS1 RAS0
BANK 7 BANK 6 BANK 5 BANK 4 BANK 3 BANK 2 BANK 1 BANK 0
RAS WE CAS IN OUT D7 D6 D5 D4 D3 D2 D1 D0 P
B19 DACK0
B11 MEMW
B12 MEMR
B30 OSC
A1 I/O CHEK
B03 +5
C13 22µF
C1a C12 100K
B31 GND
B01
C14 C99 100K
GND
B03 TO MEN
TOTTL
D C
B A
N.C.


CABEÇA DA FACE 1
CABEÇA DA FACE 0
SENSOR DE INDEX
SENSOR DE TRILHA 00
LED SENSOR DE TRILHA 00
SENSOR DE ESCRITA
LIGA MOTOR
SELETOR DE DENSIDADE
ESCRITA DE DADOS
PASSO
PORTA DE ESCRITA
SELEÇÃO DE FACE
SELETOR DRIVE 3
SELETOR DRIVE 0
SELETOR DRIVE 2
SELETOR DRIVE 1
CABEÇA ALOJADA
BLINDAGEM
APAGADORA
COMUM
FIM
INICIO
PCI SUB. CONT. DO MOTOR
U1 - 74LS74
U2,3,4 - 74LS123
DI - IS597
PCI PRINCIPAL
U1,14 - M54534
U2 - 7426
U3,5 - 74LS74
U4 - MC3470
U6 - 74LS27
U7 - 74LS195
U8 - 74LS157
U9 - 74LS33
U10 - 74LS32
U11 - 7417
U12 - 5I841
U13,16 - 7438
U15 - 74LS14
Q4,5 - 2SD636R
Q1,2,3 - 2SB643R
Q6,7 - 2SD636
Q8~13 - 2SA952
DI - MA154WK
D2~5,7,8 - MA154WA
D6,10,15,14 - IS953
D9 - SLR54UR
DII - RD3,9EB
DI2 - IS597
DI5 - IS954
SW1
SW2
SW3
RA II
U4
U2
U3
U8
U7
U12
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
J1-1
J1-2
J1-3
J1-4
J1-5
J1-6
J1-7
J1-8
J1-9
J1-10
J1-11
J1-12
J2-1
J2-2
J2-3
J2-4
J2-5
J2-6
J3-1
J3-2
J3-3
J3-4
J3-5
J3-6
J4-1
J4-2
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J4-4
J4-5
J4-6
J5-1
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J6-21
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J6-23
J6-24
J6-25
J6-26
J6-27
J6-28
J6-29
J6-30
J6-31
J6-32
J6-33
J6-34
FASE B
FASE A
FASE B
FASE A
LIGA MOTOR
TRILHA 00
PROTEÇÃO DE ESCRITA
INDEX/SETOR
LEITURA DE DADOS
PERMISSÃO PARA LEITURA

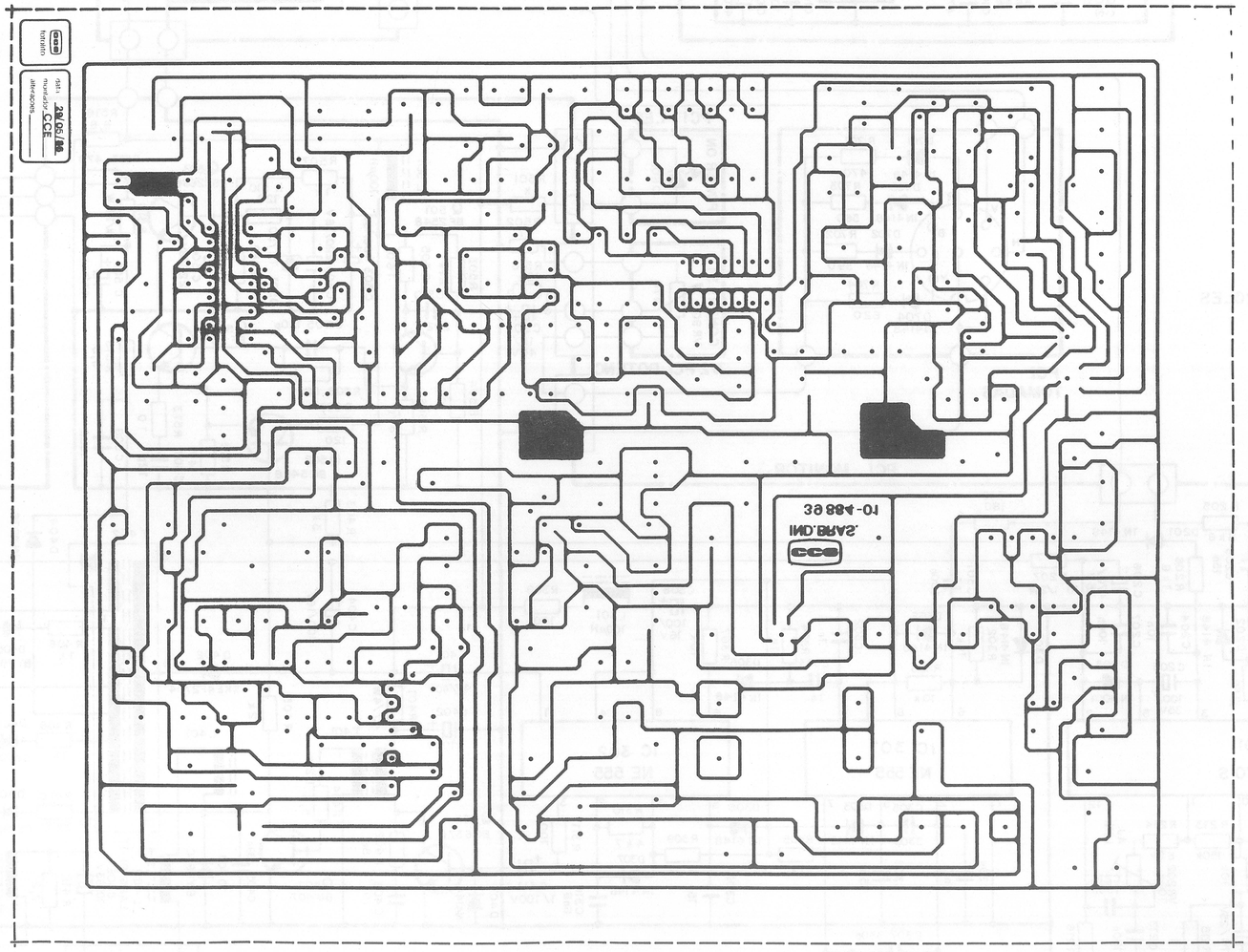

LS
cce IND BRAS 39254 0



DETALHE
ESC: 2:1



110 220V / AC
60HZ
S2
110V 220V
C1
In/1000V
F1
S1
SK3/04
D501
C501
2n2
C502
2n2
D502
SK3/04
C503
2200/25V
C506
100n
R509
18Ω 20W
IC601
7812
C507
470/16V
R603
1K5
D608 IN4148
D602 IN4148
D605 IN4148
C602
47/100V
R602
100K
T601
BC548B
T602
BC548B
C607
47µ/100V
R608
1K 2W
C608
100n
C601
100n
R601
100K
R604
1K5
D603
IN4148
47/100V
C604
R609
330Ω
T603
BF459
R605
470
C605
100n
10K
R610
R607
39
R611
6,8
VI
M31334GH
12kV
C422
100n
R401
220
C401
470/16V
SINCRONISMO
AJUSTE HORIZONTAL
TV
R403
3K3
R402
1K
R405
18K
C407
47n
C409
2N2
VR401
10KA
C411
100µ/16V
R410
56K
R430
15
C424
15n
C425
470µ/16V
C413
100n
IC 401
ICI TDA2577L
C402
47µ/40V
R404
820
C404
150n
R406
82
C406
4,7/100V
C405
47µF/16V
C403
10µF/16V
R407
8K2
R408
1K
C408
150p
C410
10µ/16V
R423
220K
C412
560n
R409
39K
VR701
220K
AJUSTE VERTICAL
TV
R713
330K
C601
100µ/16V
R412
8K2
R411
2K7
R421
470
OUT AMPLIF.
DE VIDEO
R420
D408
1N4001
IC602
7818
C712
100n
R508
0,33/4W
C418
47/100V
R415
18
C419
100µ/63V
25V
BOOSTER
D401
SKE4F2
/04
DAT
12kV
D405
IN4936
R424
100K
T402
BU407
R414
5,6
T401
C416
10n
630V
ou
1,6kV
D402
BYV 96C
LN1
LN2
L401 DH
AJUSTE LINEARIDADE
HORIZONTAL
VR404
1M
R418
560K
BRILHO
SUB.
C421
10/250V
D403
BAV21
R417
3K9
R419
3K9
C420
10n
D404
BAV21
D406
BAV21
T401
BC637B
R413
220
C415
6n2
C417
3,3µF/100V
HORIZONTAL
VR403
4M7
FOCO
TV
12V
VRI
1M
BRILHO
RI
1K
DLI
PCI POTENCIOMETRO
COD. 1-10-39882-00
RED
GREEN
BLUE
INTENS
GND
VERT.
HORIZ.
R804
470
D801
IN4148
R805
330
D802
IN4148
R806
220
D803
IN4148
R807
620
R802
1K
R803
1K
IC801
74LS04
R801
220
C801
10n
DZ 801
IN751
VERTICAL
TDA 3651 L
IC 701
R701
8K2
D701
BAX12A
C702
220p
C701
4n7
C703
2N2
R704
470
L701
DV
C707
1000/16V
R710
50
C708
100/10V
C704
330µ/25V
R705
5K6
R712
10
R702
120
VR702
100
R706
5K6
C705
33µ/16V
R707
10
R708
560
R703
120
R709
33K
C706
6n8
TV


IND.BAR2
10-4886

POWER

PCI FONTE

1/5 PCI CONTROLES

AC
110/220V
50/60 Hz

F1 1A
S2
C1 1n/1,4 V
110V
220V
S3
T 101

D101 SK3/04
C101 2x2n2
C102
D102 SK3/04
C103 2200/25V
R101 5,6 4W
C104 470n
Q101 TIP 42B
Q102 BC 327/16
R102 47/5W
R103 47/5W
C105 4,7/40V
IC101 7812
C106 100n
C107 470/25V
F101 1,5A

C2 10n

R801 47/1,6W
C802 10n
R802 100 k
D801 1N4148
RL 801
C801 100n
Q 801 BC 548B

PCI LED
POWER ON D601
CONTRASTE VR 901 470

PCI TOMADAS
D701 1N4148 R701 470
D703 1N4148 R703 560
D702 1N4148 R702 390
D704 1N4148 R704 620
R R
V V
B B
G G
H H
Y Y

1/2 PCI POTENC.

R501 1k
R502 47
R518 10k
C501 10/40V

Q 501 BF 254B
L 501 100µH
R507 1k
R510 120
Q 503 2SC2688k
R516 6,8
R517 470
R514 1k/2,5 W
C503 100/16V
C504 220/16V
D501 1N 750
R511 1k2
C506 220/16V
C508 47/100V
R503 27k
R505 160
C510 2p2
R504 10k
R506 470
C505 120p
Q 504 BF 254B
R508 820
R509 120
Q 502 BC 548B
R515 3,3
R513 10
C507 12p
R512 47
C509 100n

12L12Z1WR400
C3 33n

1/5 PCI CONTROLES
NORMAL
HERCULES
1/5 PCI CONTROLES
VERT. 100k
VR 801

PCI MONITOR

R201 180 k
R202 100k
A.J. ALT.
VR 201 220k
C201 150n
R203 120k
C202 15n
C203 15n
R 205 5k6
D201 1N4148
R206 1k8
R204 150
D202 1N 4148
C204 10n
C205 100/35V
D203 1N 4001
C206 470/35V
R 207 10 1/2W
C207 100n
R301 180
C301 100n
D301 1N 4148
R302 10k
D302 1N 4148
R303 10 k
C302 1n
R304 1k
C303 1n
D305 1N4148
R307 10 k
C308 100/16 V
L 301 100µH
R308 100

IC 201
TDA 1170 S
TAB
C208 33p
R208 220 k
C209 1n 5
R210 10 k
C210 100n
R209 3,3
C211 47/25V
R211 15 k
R212 10k
C212 470/25V
R213 150k
R215 1
C213 100n
R214 68 k
VR202 10k
A.J. LIN.
C214 100n
R216

IC 301
NE 555
C305 330p
D303 1N4148
C304 4n7
C306 15n
R305 1 k
D306 1N4148
R309 470
C309 15n
R310 4 k7
D307 1N4148
C310 6n8
R311 100
C311 1/100V

IC 302
NE 555

C307 330p
D304 1N4148
R306 2 k2

L 1
1/2 YOKE

VR 802
4 k 7
FASE HORIZONTAL

1/5 PCI CONTROLES

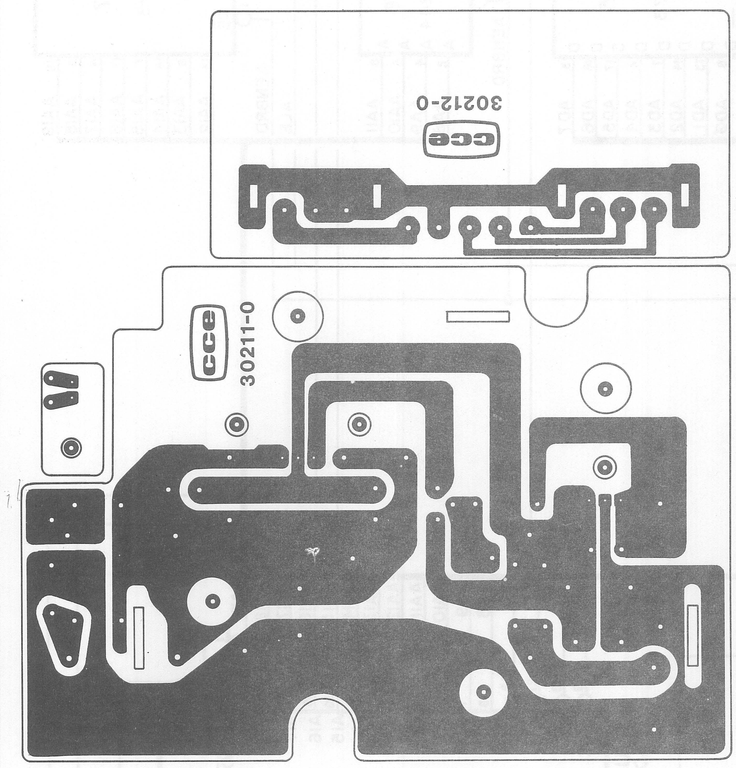
C401 4,7/40V
C402 1/100V
R401 4,7/4W
T 401
R405 82 k
L 401
D 402 SKE4F2/04
C404 100/16V
R404 5,6 1/2W
Q 401 BC 637C
Q 402 BU 407
D401 1N4148
R402 56
C403 10n
C405 33n
D403 BYV95C

T 402
D404 1N 4936
L 402 LARG. BL-11
C406 10/63V
R412 2,2
T 403
C407 1n
C408 100n

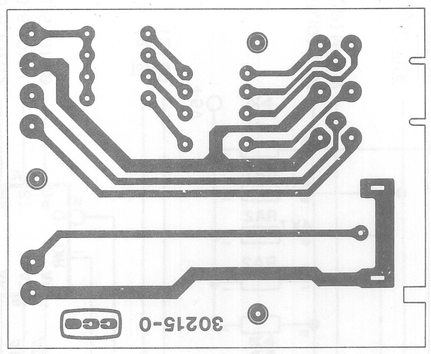
VR401 1M
AJ. SUB-BRILHO
R413 220k
R414 270k
C409 22/100V
R417 27k
R406 1 k
D405 BYV95C
R407 22 k
R408 1 k
D406 BYV95C
R409 15k
R410 2k 2
D407 BYV96D
R411 560
R415 68 k
C410 47/100V
R416 3M3
C411 10 n
R418 330 k
R419 220 k
R420 220 k

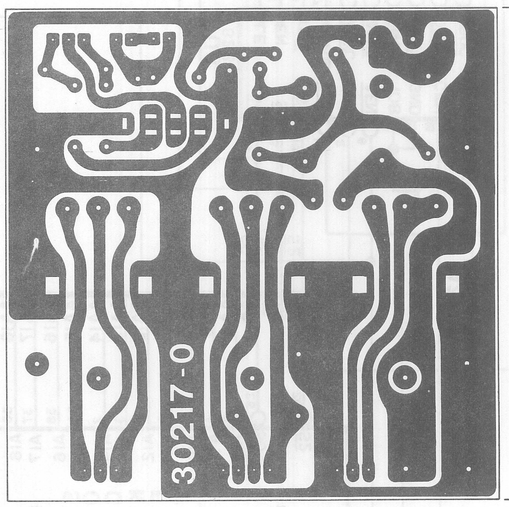
1/2 PCI POTENC.
VR 902 220 k
BRILHO
VR 803 4M7
FOCO
1/5 PCI CONTROLES

L 1
1/2 YOKE



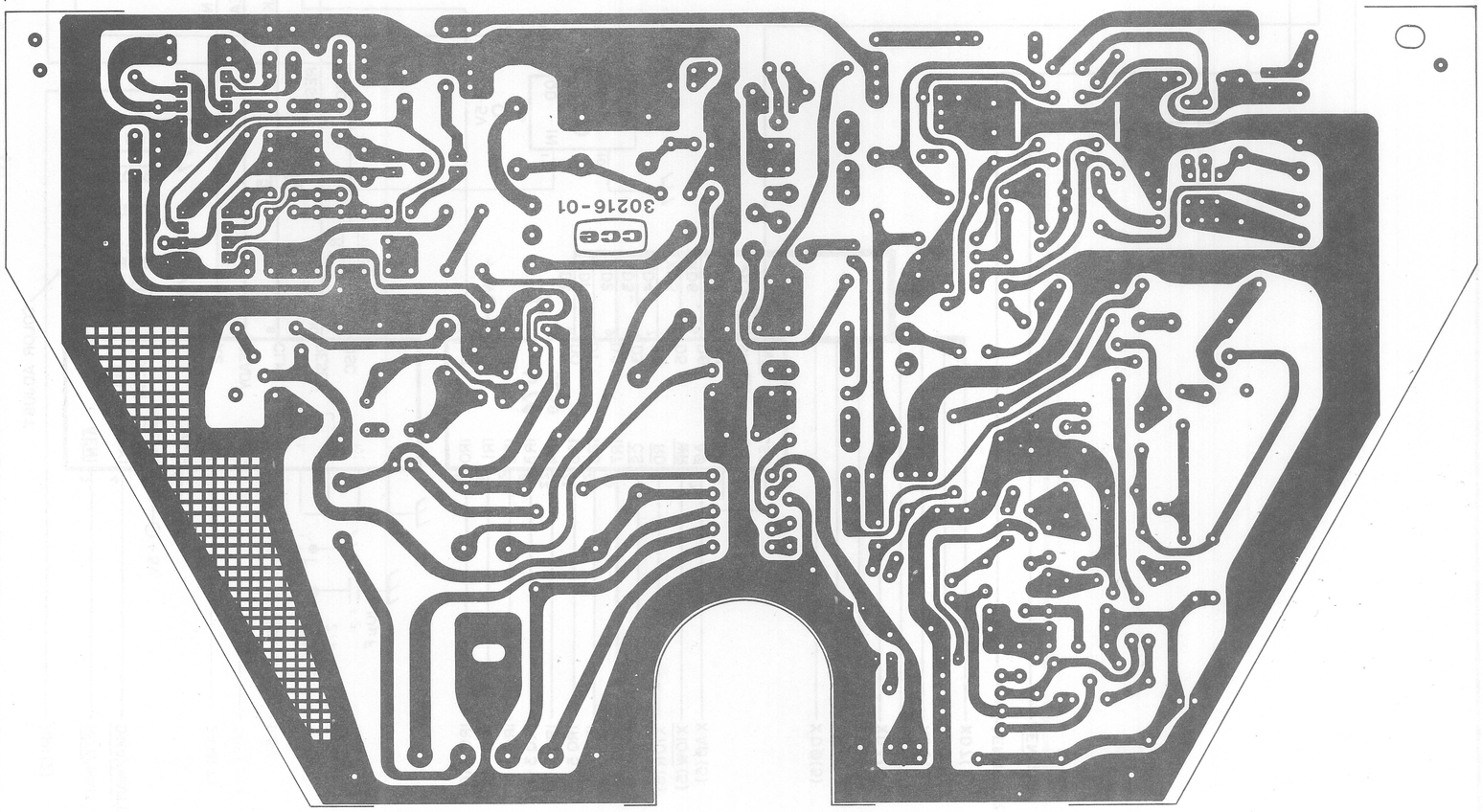
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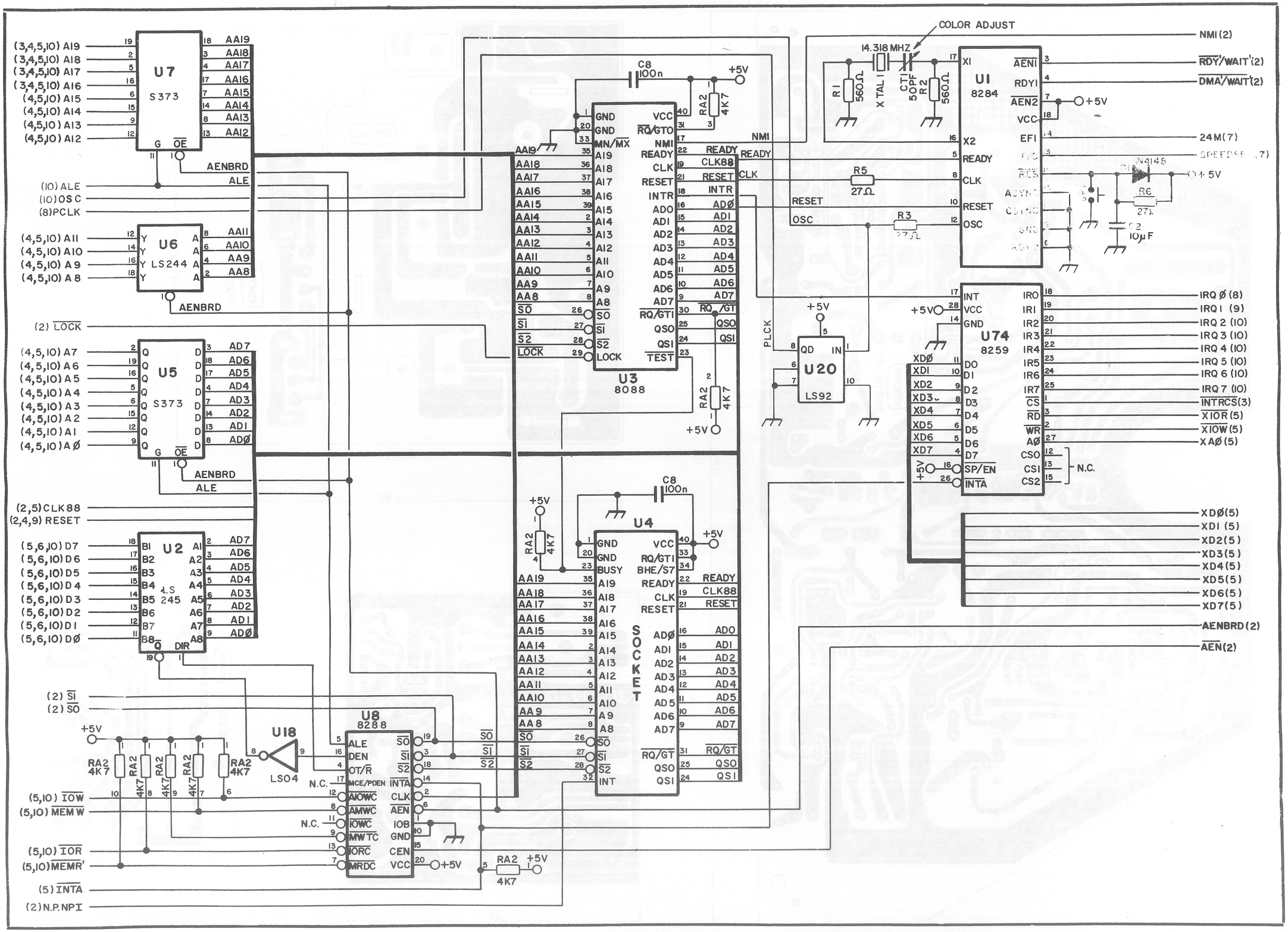


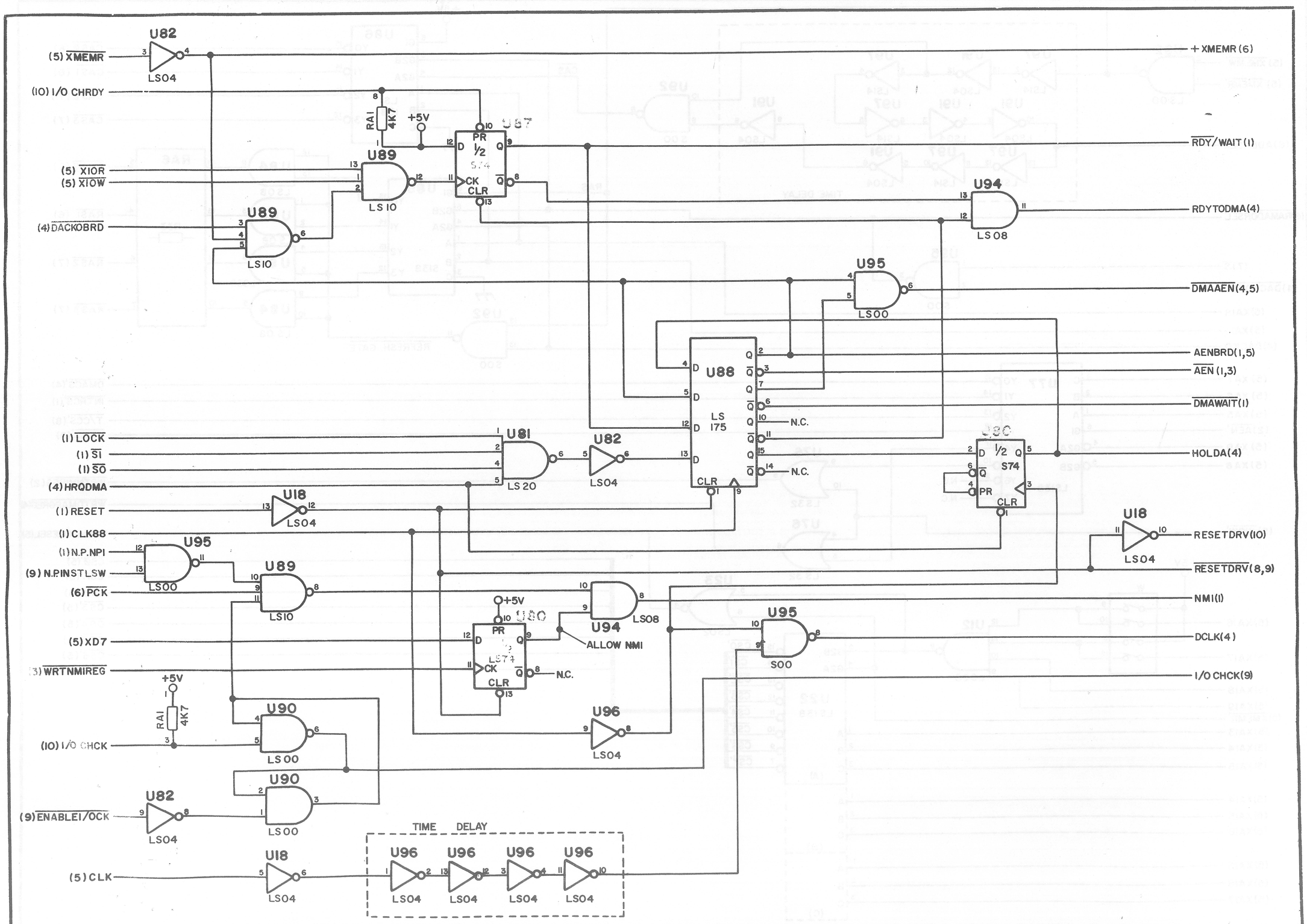


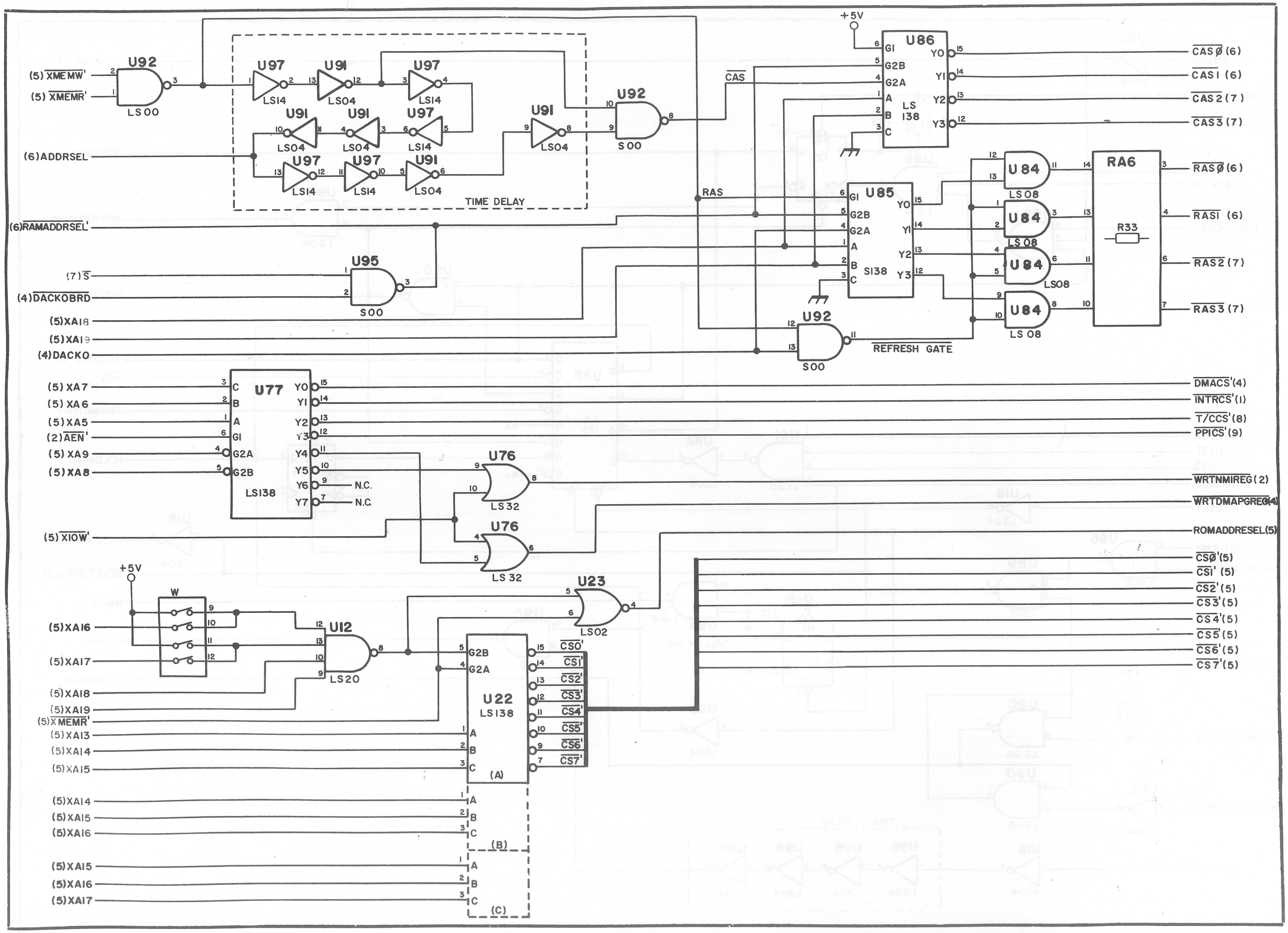
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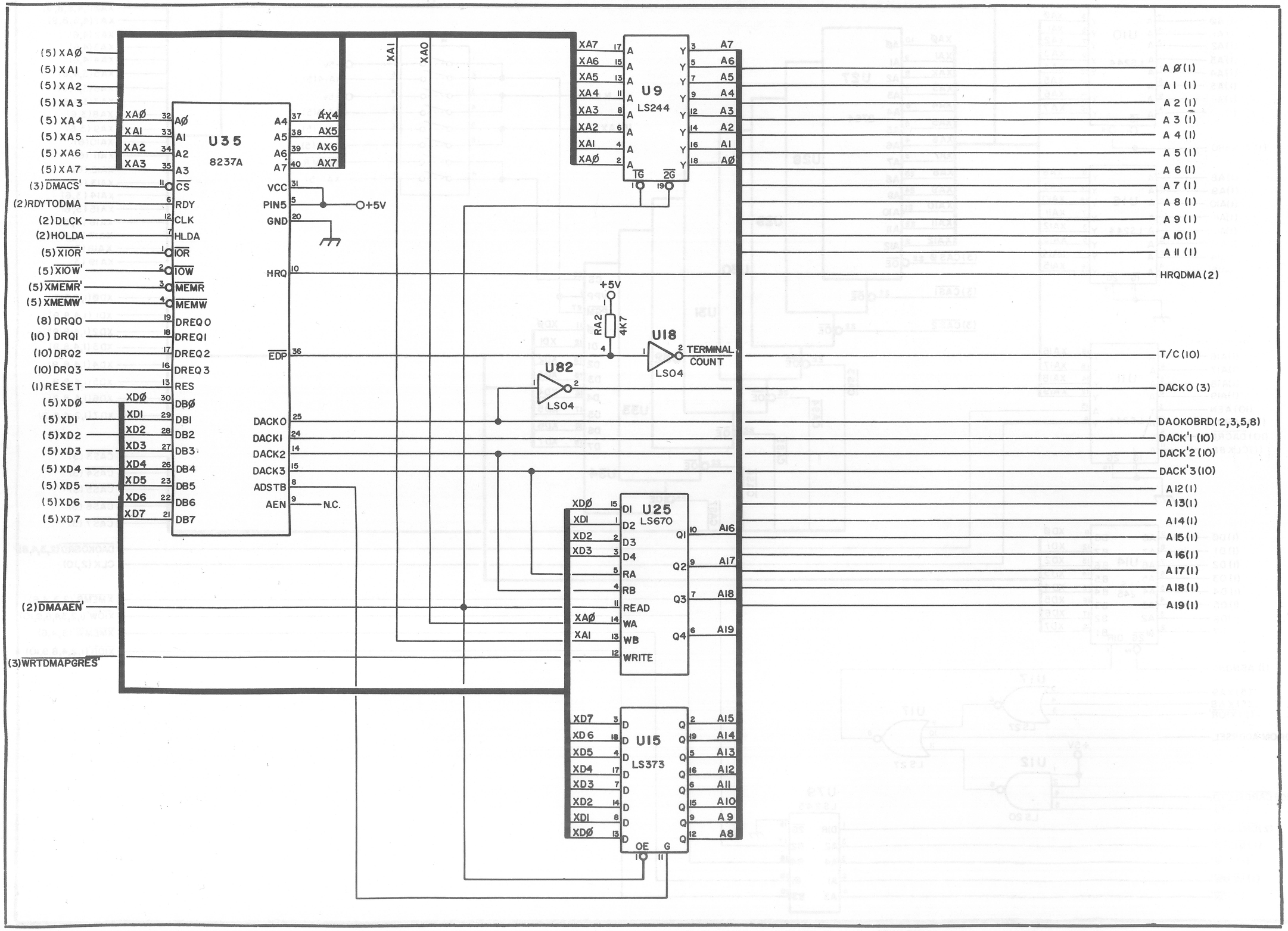
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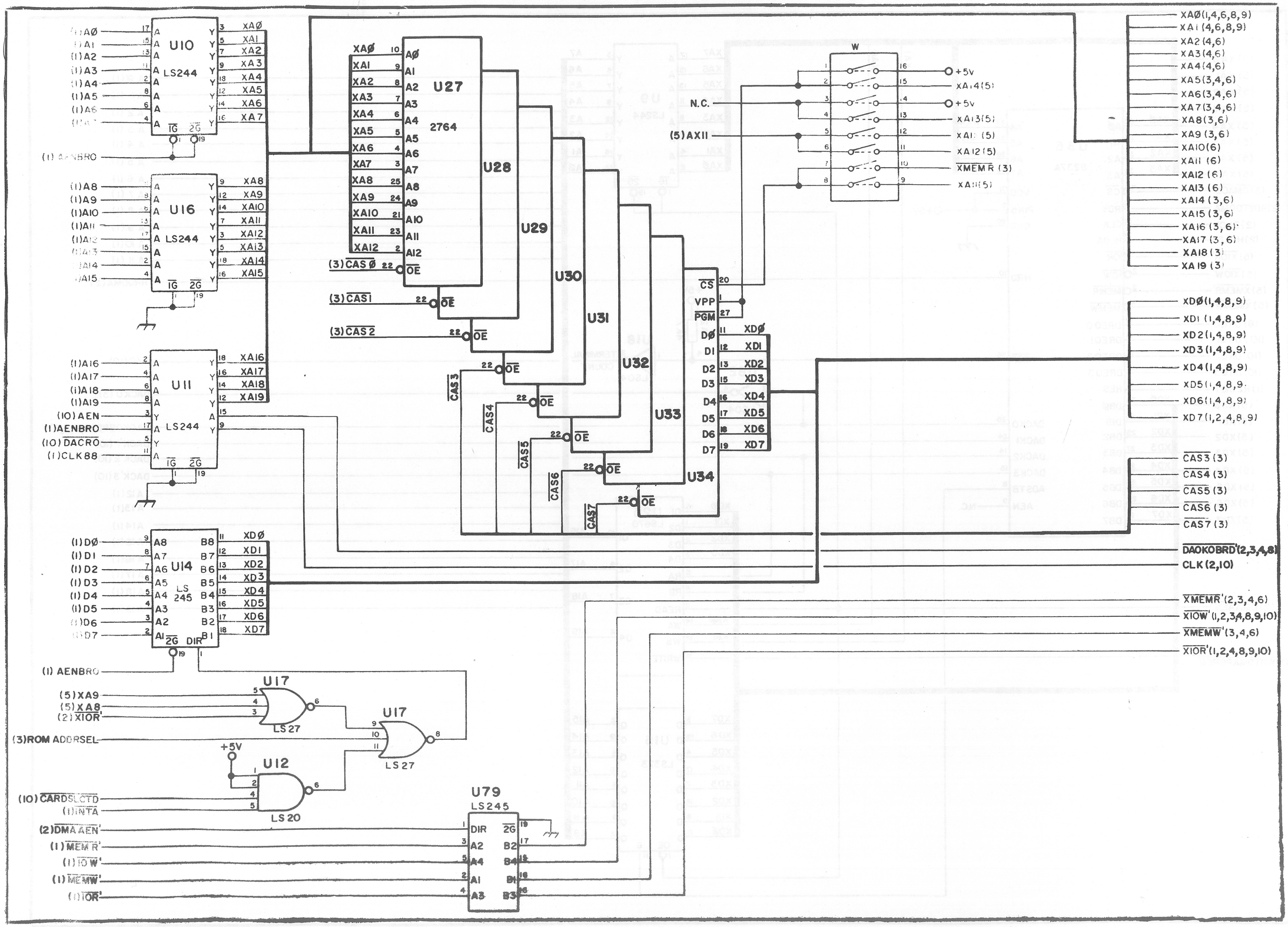


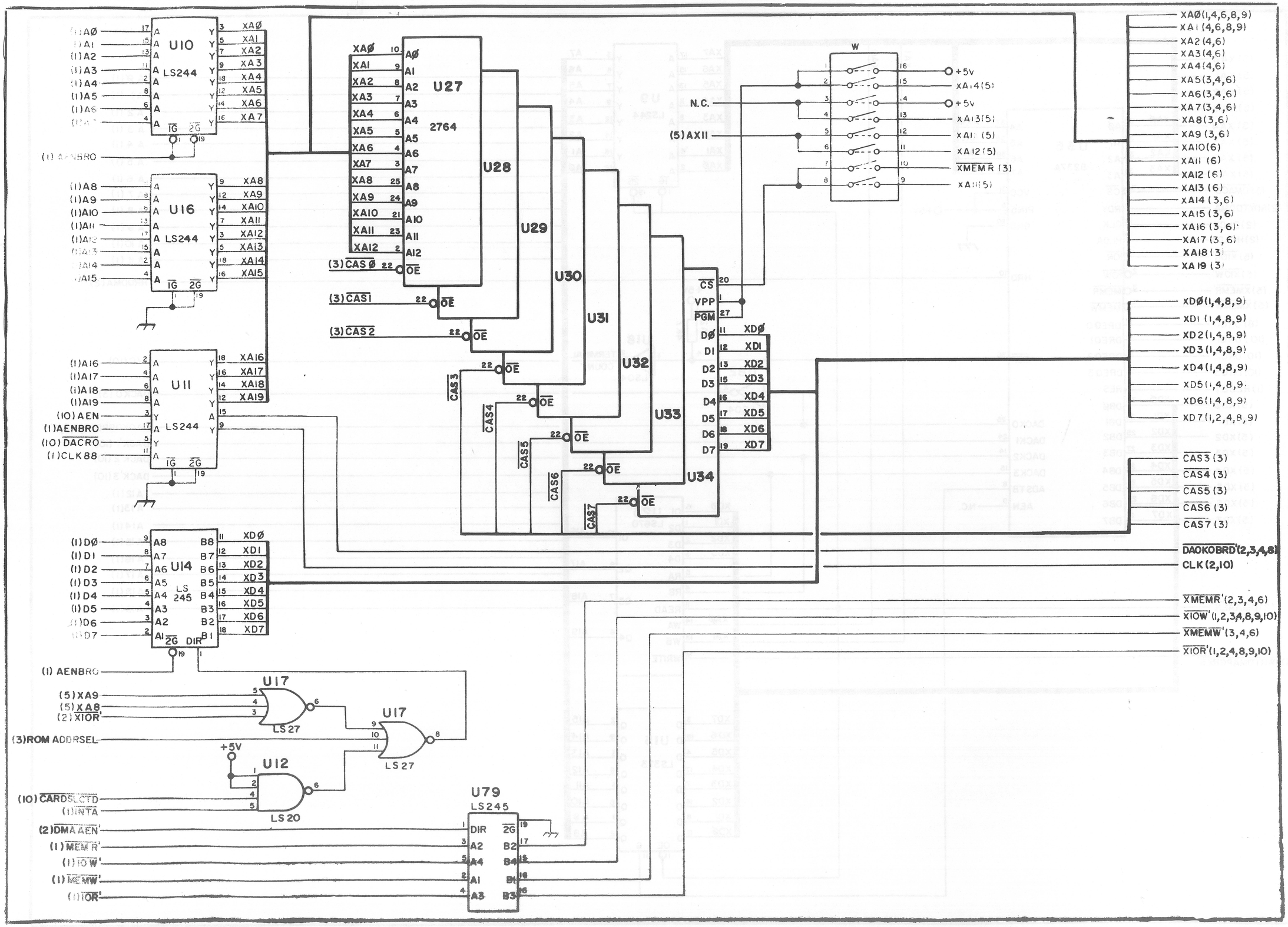

U7
S373
U6
LS244
U5
S373
U2
LS 245
U3
8088
U4
SOCKET
U8
8288
U18
LS04
U20
LS92
U1
8284
U74
8259
14.318 MHZ
COLOR ADJUST
C8 100n
RA2 4K7
R1 560Ω
R2 560Ω
CT1 50PF
XTAL 1
R5 27Ω
R3 27Ω
R6 27K
C2 10μF
1N4148
+5V
AENBRD
ALE
PCLK
RESET
OSC
READY
CLK88
NMI
INTR
PLCK
N.C.
(10) ALE
(10) OSC
(8) PCLK
(2) LOCK
(2,5) CLK88
(2,4,9) RESET
(2) SI
(2) SO
(5,10) IOW
(5,10) MEMW
(5,10) IOR
(5,10) MEMR'
(5) INTA
(2) N.P. NPI
NMI (2)
RDY'/WAIT'(2)
DMA'/WAIT'(2)
24M (7)
AENBRD (2)
AEN (2)
IRQ Ø (8)
IRQ 1 (9)
IRQ 2 (10)
IRQ 3 (10)
IRQ 4 (10)
IRQ 5 (10)
IRQ 6 (10)
IRQ 7 (10)
INTRCS (3)
XIOR (5)
XIOW (5)
XAØ (5)
XDØ (5)
XD1 (5)
XD2 (5)
XD3 (5)
XD4 (5)
XD5 (5)
XD6 (5)
XD7 (5)

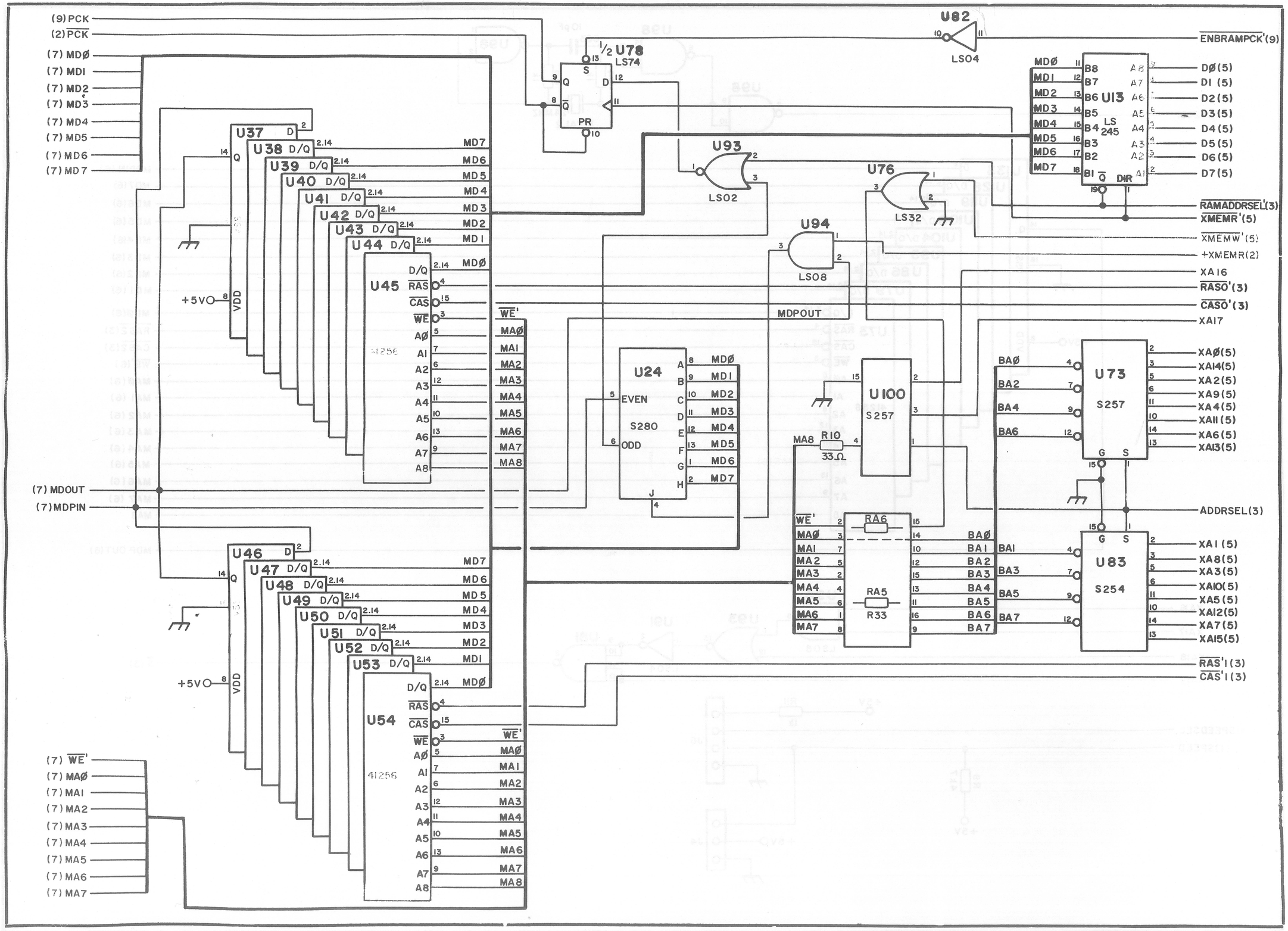

U82
(5) XMEMR
LS04
+XMEMR (6)
(10) I/O CHRDY
RAI 4K7
+5V
U87
S74
PR
½
D
Q
CK
CLR
RDY/WAIT (1)
U89
LS 10
(5) XIOR
(5) XIOW
U94
LS 08
RDYTODMA(4)
(4) DACKOBRD
LS10
U95
LS00
DMAAEN(4,5)
U88
LS 175
AENBRD(1,5)
AEN (1,3)
DMAWAIT(1)
N.C.
U81
LS 20
U82
LS04
(1) LOCK
(1) SI
(1) SO
(4) HRQDMA
U18
(1) RESET
(1) CLK88
U80
HOLDA(4)
(1) N.P.NPI
(9) N.P.INSTLSW
(6) PCK
U89
LS10
U95
LS00
RESETDRV(10)
RESETDRV(8,9)
NMI(1)
+5V
U80
S74
(5) XD7
(3) WRTNMIREG
U94
LS08
ALLOW NMI
N.C.
U95
S00
DCLK(4)
I/O CHCK(9)
RAI 4K7
(10) I/O CHCK
U90
LS 00
U96
LS04
U90
LS00
U82
LS04
(9) ENABLEI/OCK
TIME DELAY
U18
LS04
(5) CLK
U96
LS04
U96
LS04
U96
LS04
U96
LS04

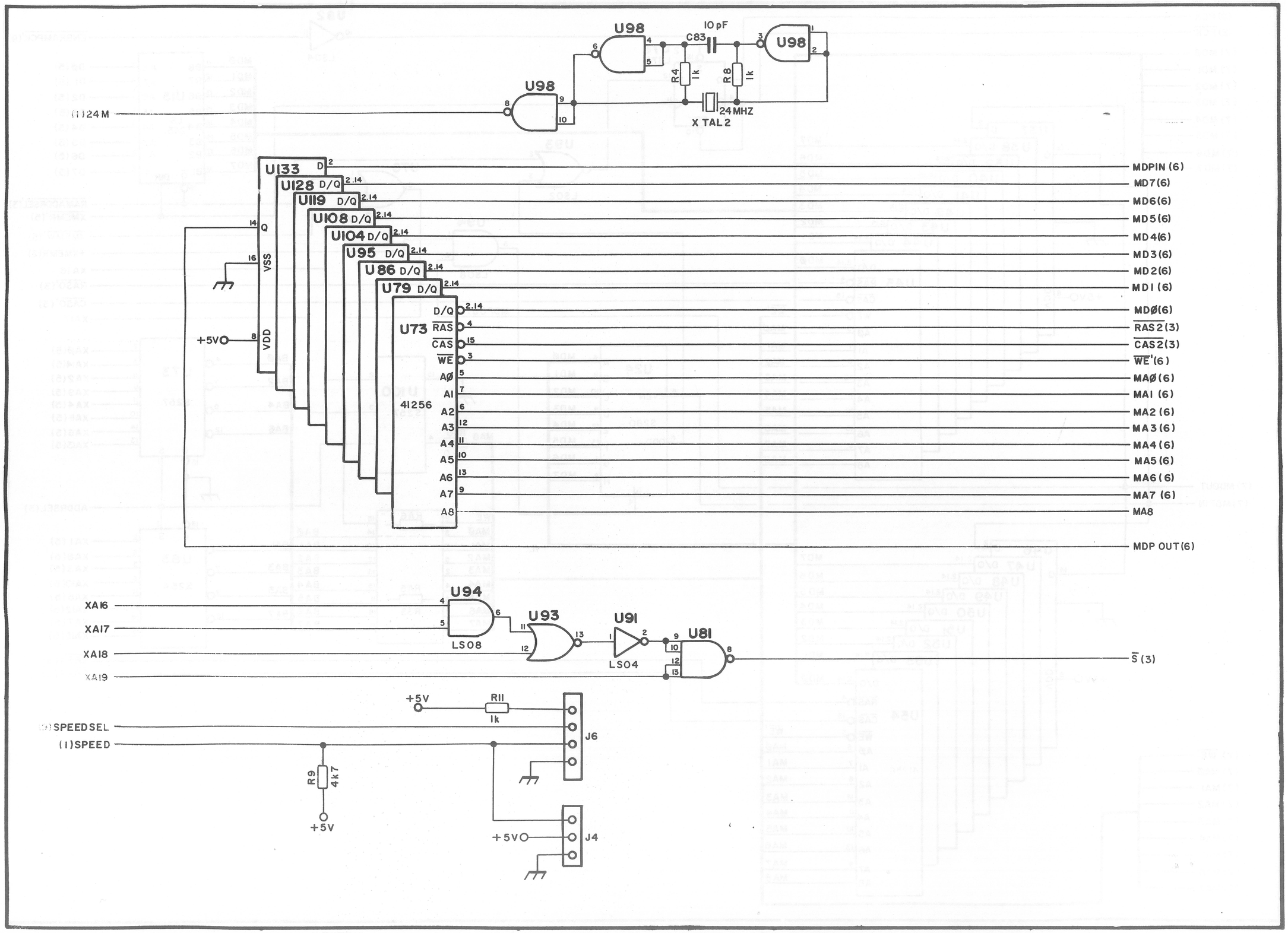

U92
LS00
(5) XMEMW'
(5) XMEMR'
U97
LS14
U91
LS04
U97
LS14
U91
LS04
U91
LS04
U97
LS14
U97
LS14
U91
LS04
TIME DELAY
U91
LS04
U92
S00
(6)ADDRSEL
(6)RAMADDRSEL'
U95
S00
(7) S
(4) DACKOBRD
(5)XA18
(5)XA19
(4)DACKO
CAS
RAS
+5V
U86
LS 138
G1
G2B
G2A
A
B
C
Y0
Y1
Y2
Y3
CASØ (6)
CAS1 (6)
CAS2 (7)
CAS3 (7)
U85
S138
U84
LS08
RA6
R33
RASØ (6)
RAS1 (6)
RAS2 (7)
RAS3 (7)
U92
S00
REFRESH GATE
(5) XA7
(5) XA6
(5) XA5
(2) AEN'
(5) XA9
(5) XA8
U77
LS138
Y4
Y5
Y6
Y7
N.C.
N.C.
DMACS'(4)
INTRCS'(1)
T/CCS'(8)
PPICS'(9)
U76
LS 32
WRTNMIREG(2)
WRTDMAPGREG(4)
(5) XIOW'
ROMADDRESEL(5)
+5V
W
(5)XA16
(5)XA17
(5)XA18
(5)XA19
(5) XMEMR'
U12
LS20
U23
LS02
U22
LS138
(A)
(B)
(C)
(5)XA13
(5)XA14
(5)XA15
(5)XA14
(5)XA15
(5)XA16
(5)XA15
(5)XA16
(5)XA17
CSØ'
CS1'
CS2'
CS3'
CS4'
CS5'
CS6'
CS7'
CSØ'(5)
CS1' (5)
CS2'(5)
CS3'(5)
CS4'(5)
CS5'(5)
CS6'(5)
CS7'(5)

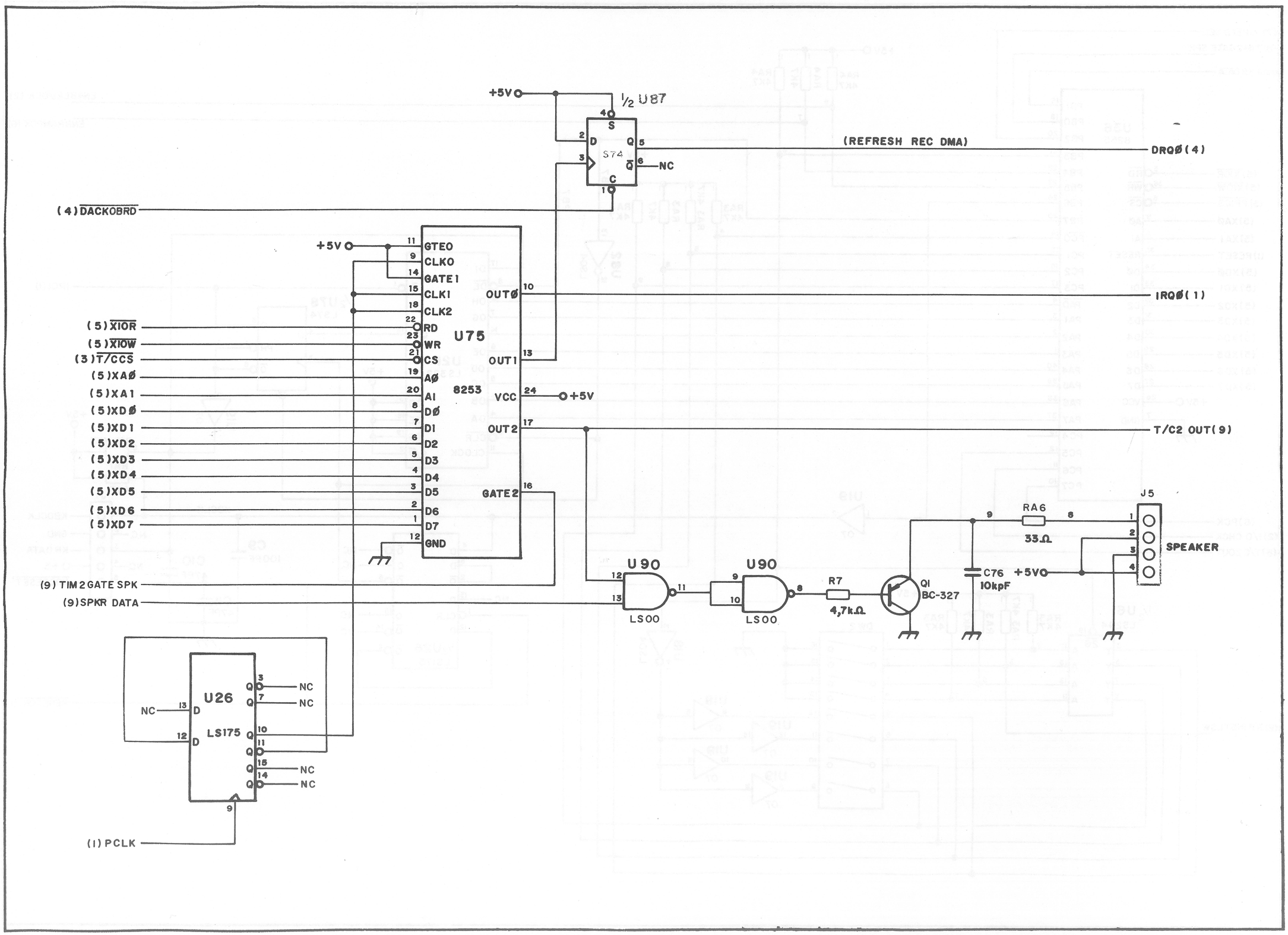

(5) XAØ
(5) XAI
(5) XA2
(5) XA3
(5) XA4
(5) XA5
(5) XA6
(5) XA7
(3) DMACS'
(2) RDYTODMA
(2) DLCK
(2) HOLDA
(5) XIOR'
(5) XIOW'
(5) XMEMR'
(5) XMEMW'
(8) DRQO
(10) DRQI
(10) DRQ2
(10) DRQ3
(1) RESET
(5) XDØ
(5) XDI
(5) XD2
(5) XD3
(5) XD4
(5) XD5
(5) XD6
(5) XD7
(2) DMAAEN'
(3) WRTDMAPGRES'
U35
8237A
AØ
AI
A2
A3
CS
RDY
CLK
HLDA
IOR
IOW
MEMR
MEMW
DREQ0
DREQI
DREQ2
DREQ3
RES
DBØ
DBI
DB2
DB3
DB4
DB5
DB6
DB7
A4
A5
A6
A7
VCC
PIN5
GND
HRQ
EDP
DACKO
DACKI
DACK2
DACK3
ADSTB
AEN
N.C.
+5V
AX4
AX5
AX6
AX7
XAI
XAO
U9
LS244
TG
2G
A7
A6
A5
A4
A3
A2
AI
AØ
A Ø (1)
A I (1)
A 2 (1)
A 3 (1)
A 4 (1)
A 5 (1)
A 6 (1)
A 7 (1)
A 8 (1)
A 9 (1)
A 10 (1)
A 11 (1)
HRQDMA (2)
RA2
4K7
U18
LS04
TERMINAL COUNT
T/C (10)
U82
DACKO (3)
DAOKOBRD (2,3,5,8)
DACK'1 (10)
DACK'2 (10)
DACK'3 (10)
A 12 (1)
A 13 (1)
A 14 (1)
A 15 (1)
A 16 (1)
A 17 (1)
A 18 (1)
A 19 (1)
U25
LS670
DI
D2
D3
D4
RA
RB
READ
WA
WB
WRITE
Q1
Q2
Q3
Q4
A16
A17
A18
A19
U15
LS373
OE
G
A15
A14
A13
A12
A11
A10
A9
A8

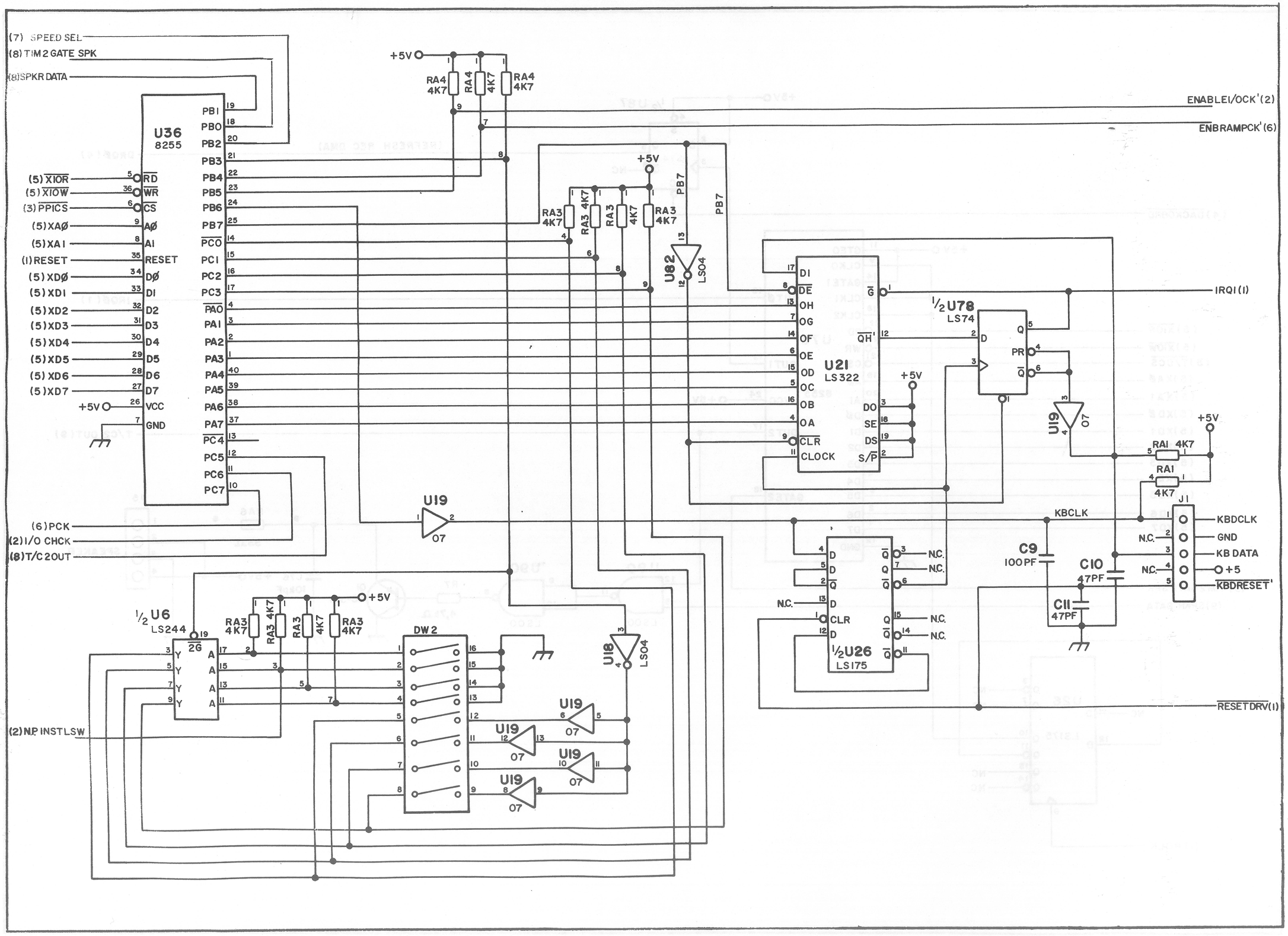

U10
LS244
(1)AØ
(1)A1
(1)A2
(1)A3
(1)A4
(1)A5
(1)A6
(1)AENBRO
XAØ
XA1
XA2
XA3
XA4
XA5
XA6
XA7
U16
LS244
(1)A8
(1)A9
(1)A10
(1)A11
(1)A12
(1)A13
(1)A14
(1)A15
XA8
XA9
XA10
XA11
XA12
XA13
XA14
XA15
U11
LS244
(1)A16
(1)A17
(1)A18
(1)A19
(10)AEN
(1)AENBRO
(10)DACRO
(1)CLK88
XA16
XA17
XA18
XA19
U27
2764
(3)CASØ
(3)CAS1
(3)CAS2
U28
U29
U30
U31
U32
U33
U34
CAS3
CAS4
CAS5
CAS6
CAS7
OE
W
N.C.
(5)AX11
+5v
XA14(5)
XA13(5)
XA11 (5)
XA12(5)
XMEMR (3)
XA11(5)
CS
VPP
PGM
DØ
D1
D2
D3
D4
D5
D6
D7
XDØ
XD1
XD2
XD3
XD4
XD5
XD6
XD7
U14
LS 245
(1)DØ
(1)D1
(1)D2
(1)D3
(1)D4
(1)D5
(1)D6
(1)D7
(1) AENBRO
U17
LS 27
(5)XA9
(5)XA8
(2)XIOR'
(3)ROM ADDRSEL
U12
LS 20
+5V
(10)CARDSLCTD
(1)INTA
U79
LS245
(2)DMA AEN'
(1)MEMR'
(1)IOW'
(1)MEMW'
(1)IOR'
DIR
A2
A4
A1
A3
B2
B4
B1
B3
XAØ(1,4,6,8,9)
XA1 (4,6,8,9)
XA2 (4,6)
XA3 (4,6)
XA4 (4,6)
XA5 (3,4,6)
XA6 (3,4,6)
XA7 (3,4,6)
XA8 (3,6)
XA9 (3,6)
XA10 (6)
XA11 (6)
XA12 (6)
XA13 (6)
XA14 (3,6)
XA15 (3,6)
XA16 (3,6)
XA17 (3,6)
XA18 (3)
XA19 (3)
XDØ(1,4,8,9)
XD1 (1,4,8,9)
XD2(1,4,8,9)
XD3(1,4,8,9)
XD4(1,4,8,9)
XD5(1,4,8,9)
XD6(1,4,8,9)
XD7(1,2,4,8,9)
CAS3 (3)
CAS4 (3)
CAS5 (3)
CAS6 (3)
CAS7 (3)
DAOKOBRD'(2,3,4,8)
CLK (2,10)
XMEMR'(2,3,4,6)
XIOW'(1,2,3,4,8,9,10)
XMEMW'(3,4,6)
XIOR'(1,2,4,8,9,10)

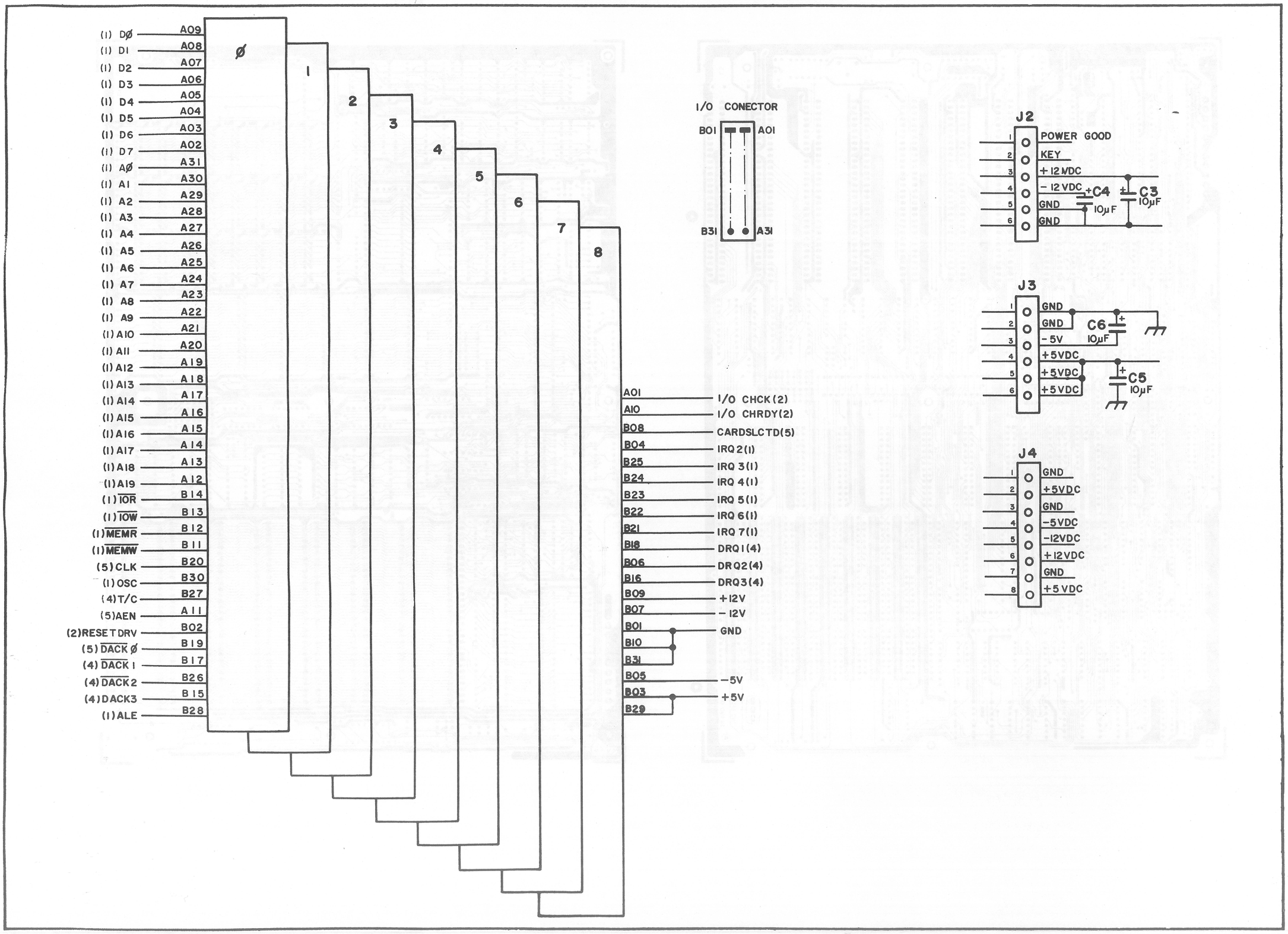

U10
LS244
(1)A0
(1)A1
(1)A2
(1)A3
(1)A4
(1)A5
(1)A6
XA0
XA1
XA2
XA3
XA4
XA5
XA6
XA7
(1) AENBRO
U16
LS244
(1)A8
(1)A9
(1)A10
(1)A11
(1)A12
(1)A13
(1)A14
(1)A15
XA8
XA9
XA10
XA11
XA12
XA13
XA14
XA15
U11
LS244
(1)A16
(1)A17
(1)A18
(1)A19
(10) AEN
(1)AENBRO
(10) DACRO
(1)CLK88
XA16
XA17
XA18
XA19
U27
2764
U28
U29
U30
U31
U32
U33
U34
(3)CAS0
(3)CAS1
(3)CAS2
CAS3
CAS4
CAS5
CAS6
CAS7
N.C.
(5)AX11
W
+5v
XA14(5)
XA13(5)
XA11 (5)
XA12(5)
XMEMR (3)
XA11(5)
CS
VPP
PGM
D0
D1
D2
D3
D4
D5
D6
D7
XD0
XD1
XD2
XD3
XD4
XD5
XD6
XD7
XA0(1,4,6,8,9)
XA1(4,6,8,9)
XA2(4,6)
XA3(4,6)
XA4(4,6)
XA5(3,4,6)
XA6(3,4,6)
XA7(3,4,6)
XA8(3,6)
XA9(3,6)
XA10(6)
XA11 (6)
XA12 (6)
XA13 (6)
XA14 (3,6)
XA15 (3,6)
XA16 (3,6)
XA17 (3,6)
XA18 (3)
XA19 (3)
XD0(1,4,8,9)
XD1 (1,4,8,9)
XD2(1,4,8,9)
XD3(1,4,8,9)
XD4(1,4,8,9)
XD5(1,4,8,9)
XD6(1,4,8,9)
XD7(1,2,4,8,9)
CAS3 (3)
CAS4 (3)
CAS5 (3)
CAS6 (3)
CAS7 (3)
DAOKOBRD'(2,3,4,8)
CLK (2,10)
XMEMR'(2,3,4,6)
XIOW'(1,2,3,4,8,9,10)
XMEMW'(3,4,6)
XIOR'(1,2,4,8,9,10)
U14
LS 245
(1) D0
(1) D1
(1) D2
(1) D3
(1) D4
(1) D5
(1) D6
(1) D7
(1) AENBRO
U17
LS 27
(5)XA9
(5)XA8
(2)XIOR'
(3)ROM ADDRSEL
U17
LS 27
+5V
U12
LS 20
(10) CARDSLCTD
(1)INTA
U79
LS245
(2)DMA AEN'
(1)MEMR'
(1)IOW'
(1)MEMW'
(1)IOR'

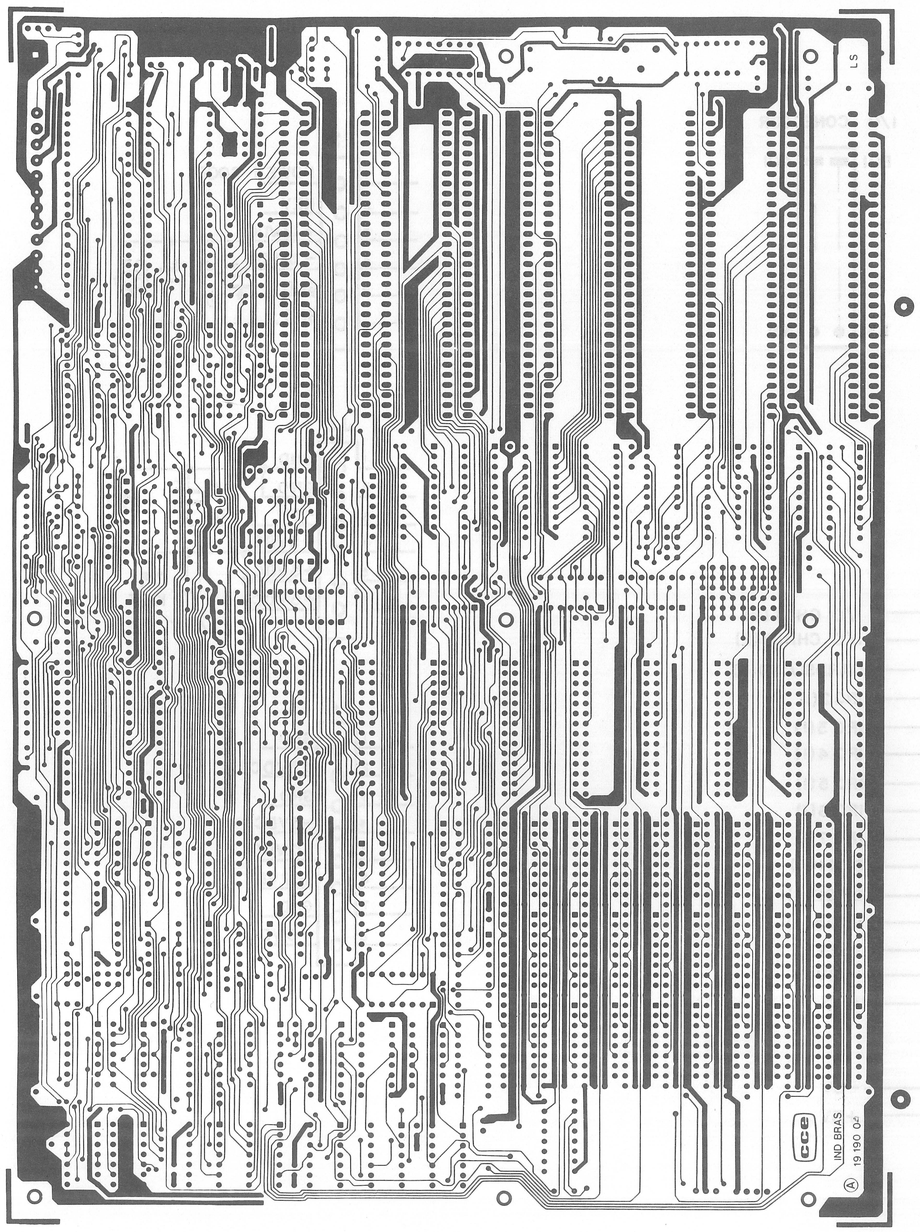

(9) PCK
(2) PCK
(7) MDØ
(7) MDI
(7) MD2
(7) MD3
(7) MD4
(7) MD5
(7) MD6
(7) MD7
U82
LS04
ENBRAMPCK'(9)
1/2 U78
LS74
U93
LS02
U76
LS32
U94
LS08
U13
LS 245
DØ(5)
DI (5)
D2(5)
D3(5)
D4(5)
D5(5)
D6(5)
D7(5)
RAMADDRSEL(3)
XMEMR'(5)
XMEMW'(5)
+XMEMR(2)
XA16
RASØ'(3)
CASØ'(3)
XAI7
MDPOUT
U37
U38
U39
U40
U41
U42
U43
U44
U45
U46
U47
U48
U49
U50
U51
U52
U53
U54
41256
+5V
VDD
MD7
MD6
MD5
MD4
MD3
MD2
MDI
MDØ
WE'
MAØ
MAI
MA2
MA3
MA4
MA5
MA6
MA7
MA8
U24
S280
EVEN
ODD
U100
S257
MA8
R10
33Ω
RA6
RA5
R33
U73
S257
U83
S254
BAØ
BA2
BA4
BA6
BAI
BA3
BA5
BA7
XAØ(5)
XAI4(5)
XA2(5)
XA9(5)
XA4(5)
XAII(5)
XA6(5)
XAI3(5)
ADDRSEL(3)
XAI(5)
XA8(5)
XA3(5)
XAI0(5)
XA5(5)
XAI2(5)
XA7(5)
XAI5(5)
RAS'I(3)
CAS'I(3)
(7) MDOUT
(7) MDPIN
(7) WE'
(7) MAØ
(7) MAI
(7) MA2
(7) MA3
(7) MA4
(7) MA5
(7) MA6
(7) MA7

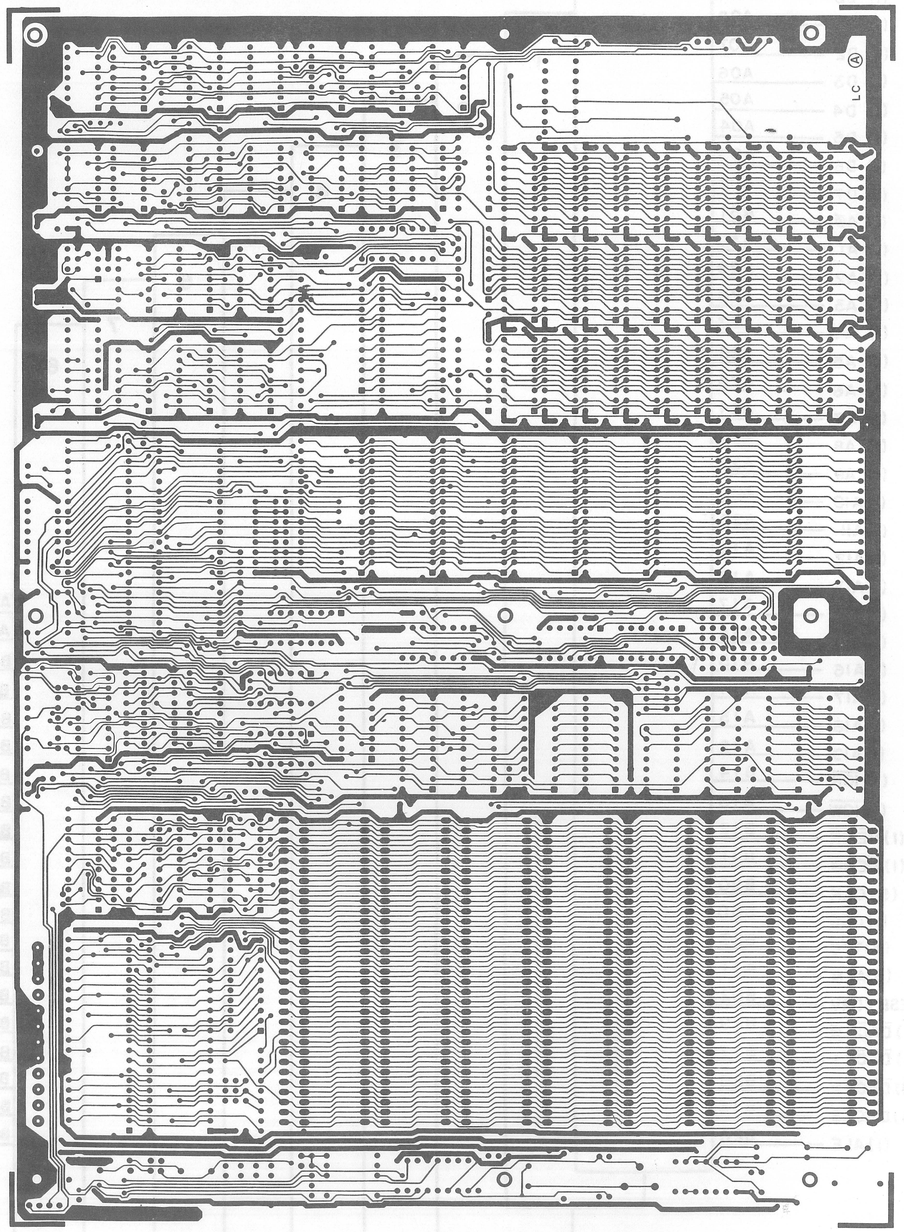

U98
10 pF
C83
U98
U98
R4 1k
R8 1k
(1)24M
24 MHZ
X TAL 2
U133 D
U128 D/Q
U119 D/Q
U108 D/Q
U104 D/Q
U95 D/Q
U86 D/Q
U79 D/Q
U73
D/Q
RAS
CAS
WE
A0
A1
A2
A3
A4
A5
A6
A7
A8
41256
Q
VSS
VDD
+5V
MDPIN (6)
MD7(6)
MD6(6)
MD5(6)
MD4(6)
MD3(6)
MD2(6)
MD1 (6)
MDØ(6)
RAS2(3)
CAS2(3)
WE'(6)
MAØ(6)
MA1 (6)
MA2 (6)
MA3 (6)
MA4 (6)
MA5(6)
MA6(6)
MA7 (6)
MA8
MDP OUT(6)
XA16
XA17
XA18
XA19
U94
LS08
U93
U91
LS04
U81
S (3)
(1)SPEEDSEL
(1)SPEED
+5V
R11 1k
J6
R9 4k7
+5V
J4

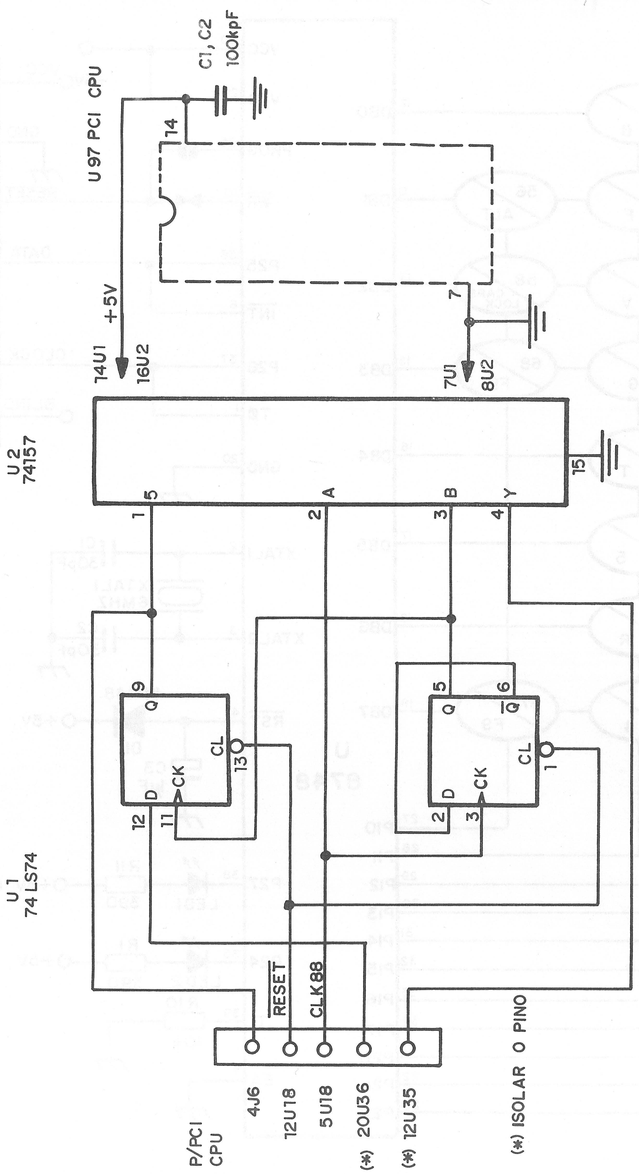

+5V
½ U87
S
D
Q
S74
C
Q
NC
(REFRESH REC DMA)
DRQØ(4)
(4) DACKOBRD
+5V
GTEO
CLKO
GATE1
CLK1
CLK2
RD
WR
CS
AØ
AI
DØ
D1
D2
D3
D4
D5
D6
D7
GND
OUTØ
OUT1
VCC
OUT2
GATE2
U75
8253
IRQØ(1)
T/C2 OUT(9)
(5) XIOR
(5) XIOW
(3) T/CCS
(5) XAØ
(5) XA1
(5) XDØ
(5) XD1
(5) XD2
(5) XD3
(5) XD4
(5) XD5
(5) XD6
(5) XD7
(9) TIM2GATE SPK
(9) SPKR DATA
U90
LS00
U90
LS00
R7
4,7kΩ
Q1
BC-327
C76
10kpF
RA6
33Ω
J5
SPEAKER
U26
LS175
NC
(1) PCLK

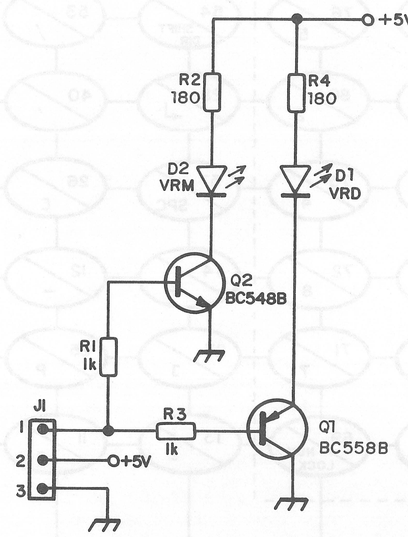

(7) SPEED SEL
(8) TIM 2 GATE SPK
(8) SPKR DATA
U36
8255
PB1
PB0
PB2
PB3
PB4
PB5
PB6
PB7
PC0
PC1
PC2
PC3
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PC4
PC5
PC6
PC7
(5) XIOR
(5) XIOW
(3) PPICS
(5) XA0
(5) XA1
(1) RESET
(5) XD0
(5) XD1
(5) XD2
(5) XD3
(5) XD4
(5) XD5
(5) XD6
(5) XD7
+5V
RD
WR
CS
A0
A1
RESET
D0
D1
D2
D3
D4
D5
D6
D7
VCC
GND
(6) PCK
(2) I/O CHCK
(8) T/C 2OUT
RA4 4K7
ENABLE1/OCK'(2)
ENBRAMPCK'(6)
RA3 4K7
U82
LS04
PB7
U21
LS322
DI
DE
OH
OG
OF
OE
OD
OC
OB
OA
CLR
CLOCK
G
QH'
DO
SE
DS
S/P
IRQ1(1)
1/2 U78
LS74
D
PR
Q
U19
07
RA1 4K7
RA1
4K7
J1
KBCLK
KBDCLK
GND
KB DATA
+5
KBDRESET'
N.C.
C9
100PF
C10
47PF
C11
47PF
1/2 U26
LS175
RESET DRV(1)
1/2 U6
LS244
2G
(2) N.P. INST LSW
DW2
U18
LS04

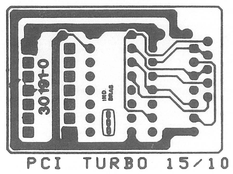

(1) DØ
(1) D1
(1) D2
(1) D3
(1) D4
(1) D5
(1) D6
(1) D7
(1) AØ
(1) A1
(1) A2
(1) A3
(1) A4
(1) A5
(1) A6
(1) A7
(1) A8
(1) A9
(1) A10
(1) A11
(1) A12
(1) A13
(1) A14
(1) A15
(1) A16
(1) A17
(1) A18
(1) A19
(1) IOR
(1) IOW
(1) MEMR
(1) MEMW
(5) CLK
(1) OSC
(4) T/C
(5) AEN
(2) RESET DRV
(5) DACK Ø
(4) DACK 1
(4) DACK 2
(4) DACK3
(1) ALE
A09
A08
A07
A06
A05
A04
A03
A02
A31
A30
A29
A28
A27
A26
A25
A24
A23
A22
A21
A20
A19
A18
A17
A16
A15
A14
A13
A12
B14
B13
B12
B11
B20
B30
B27
A11
B02
B19
B17
B26
B15
B28
Ø
1
2
3
4
5
6
7
8
I/O CONECTOR
B01
A01
B31
A31
A01
I/O CHCK(2)
A10
I/O CHRDY(2)
B08
CARDSLCTD(5)
B04
IRQ 2(1)
B25
IRQ 3(1)
B24
IRQ 4(1)
B23
IRQ 5(1)
B22
IRQ 6(1)
B21
IRQ 7(1)
B18
DRQ1(4)
B06
DRQ2(4)
B16
DRQ3(4)
B09
+12V
B07
-12V
B01
B10
B31
GND
B05
-5V
B03
B29
+5V
J2
1
2
3
4
5
6
POWER GOOD
KEY
+12VDC
-12VDC
GND
GND
+C4
10µF
C3
10µF
J3
1
2
3
4
5
6
GND
GND
-5V
+5VDC
+5VDC
+5VDC
C6
10µF
C5
10µF
J4
1
2
3
4
5
6
7
8
GND
+5VDC
GND
-5VDC
-12VDC
+12VDC
GND
+5VDC


LS
cce
IND BRAS
19 190 02

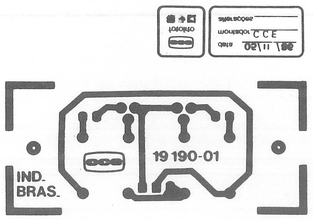

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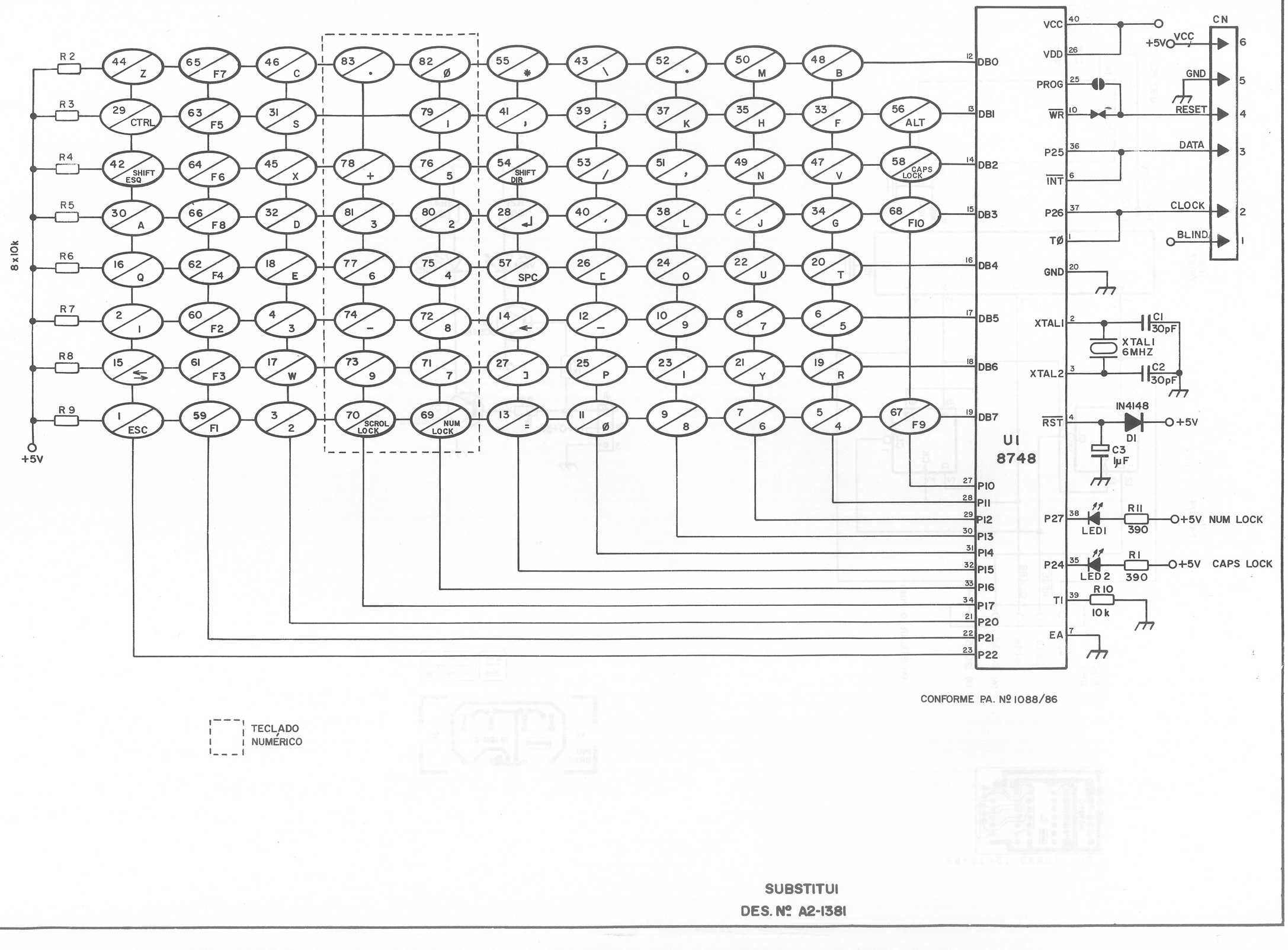






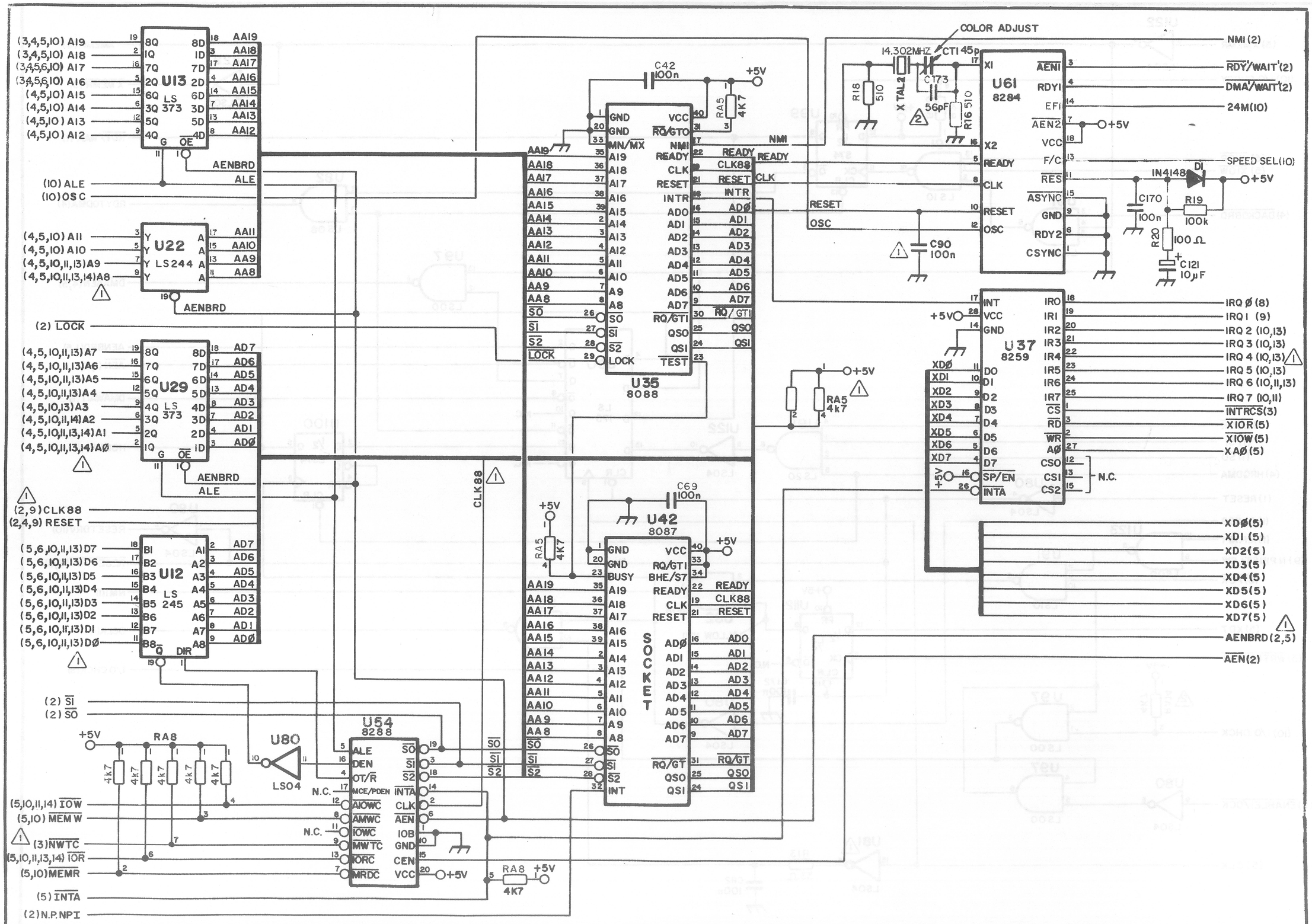
PCI TURBO 15/10/87

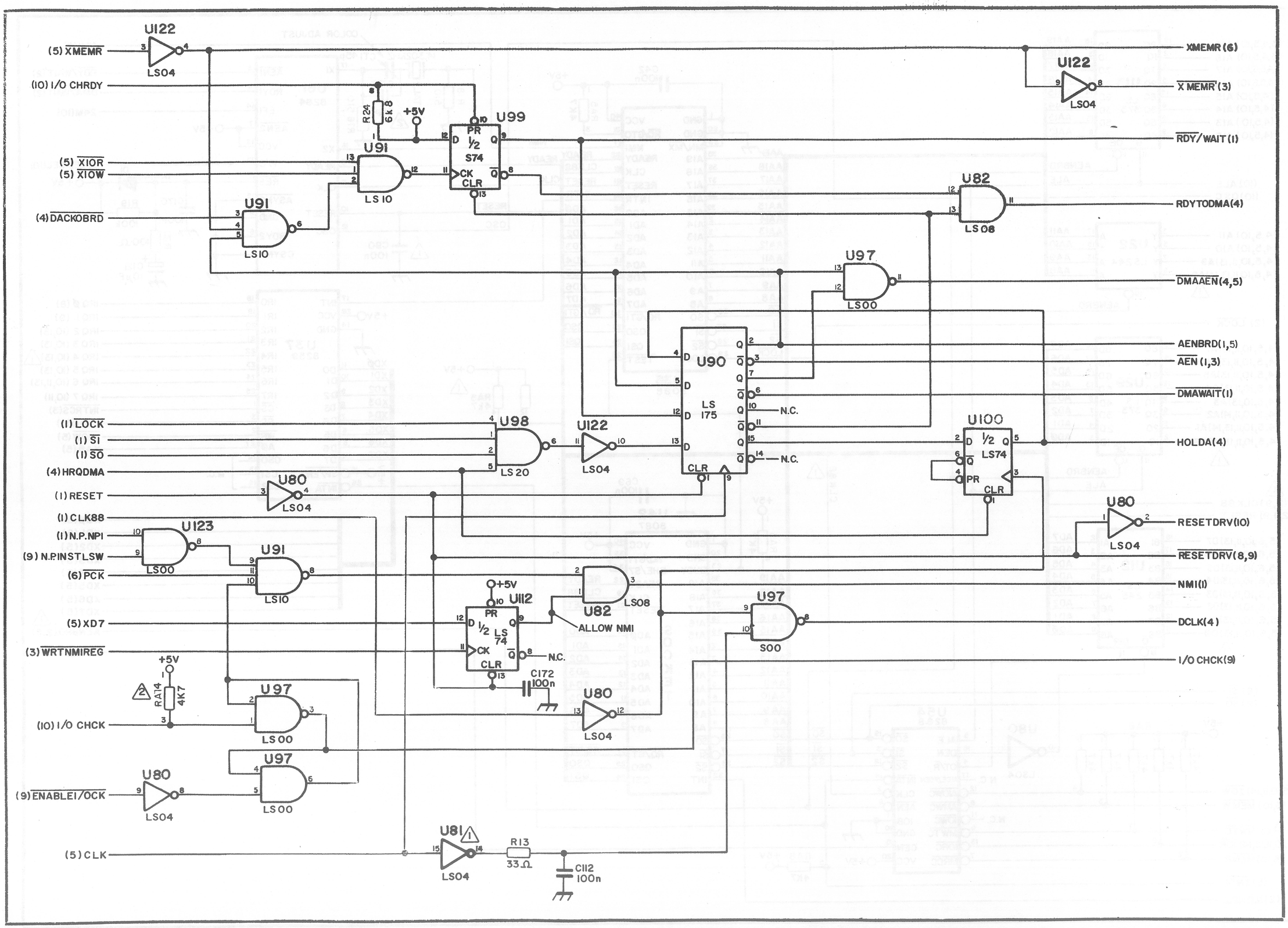


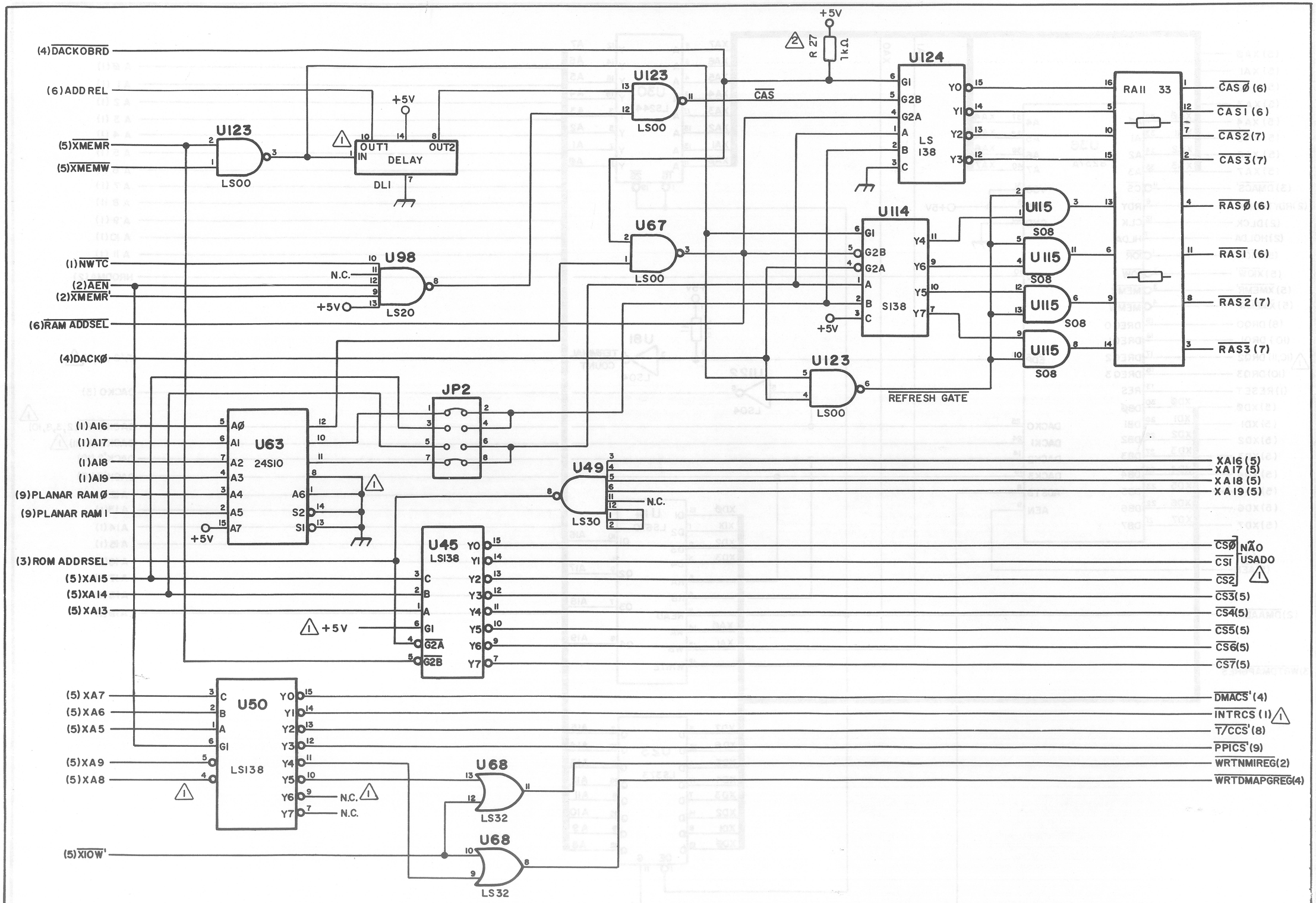


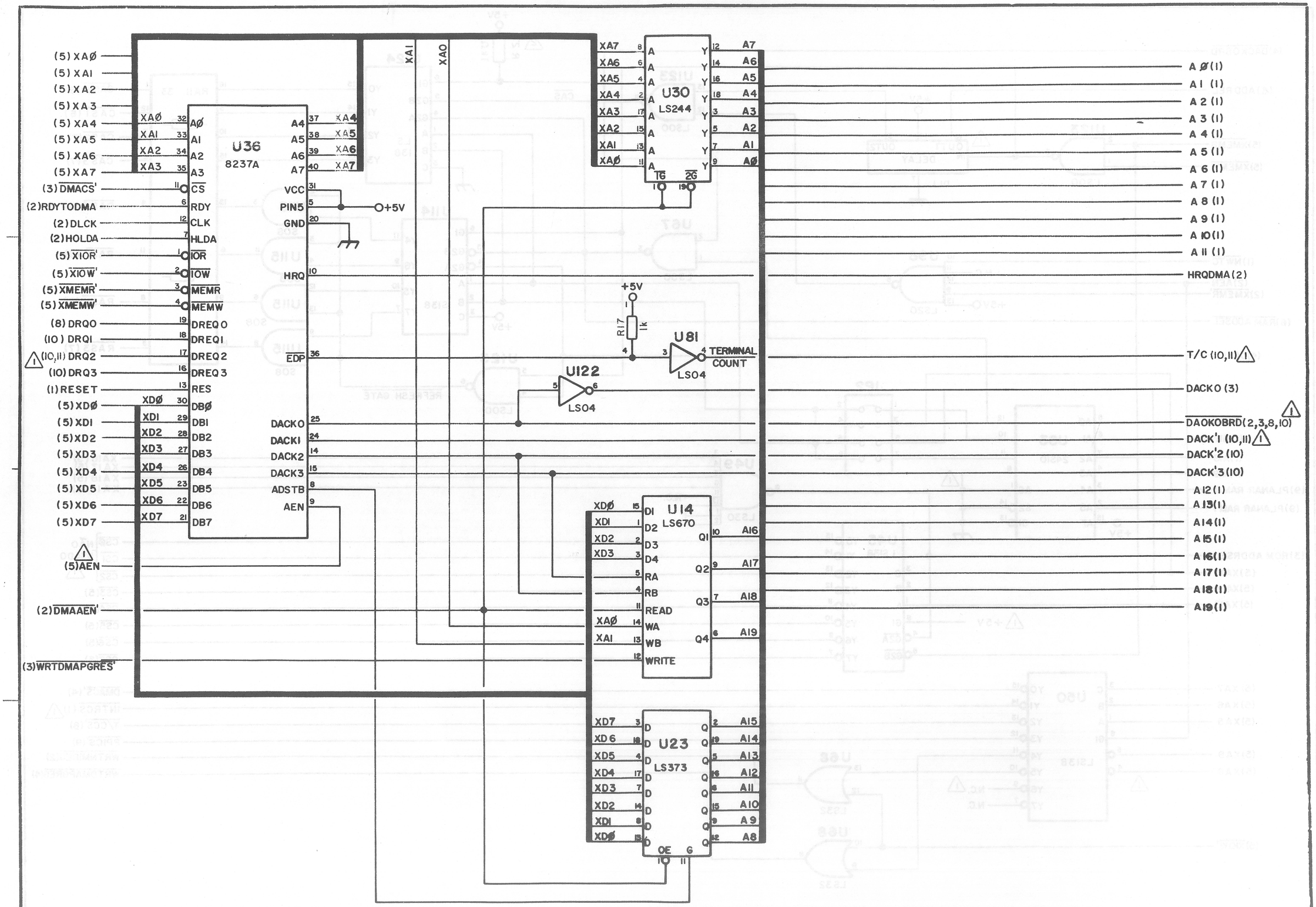
CONFORME PA. Nº 1088/86

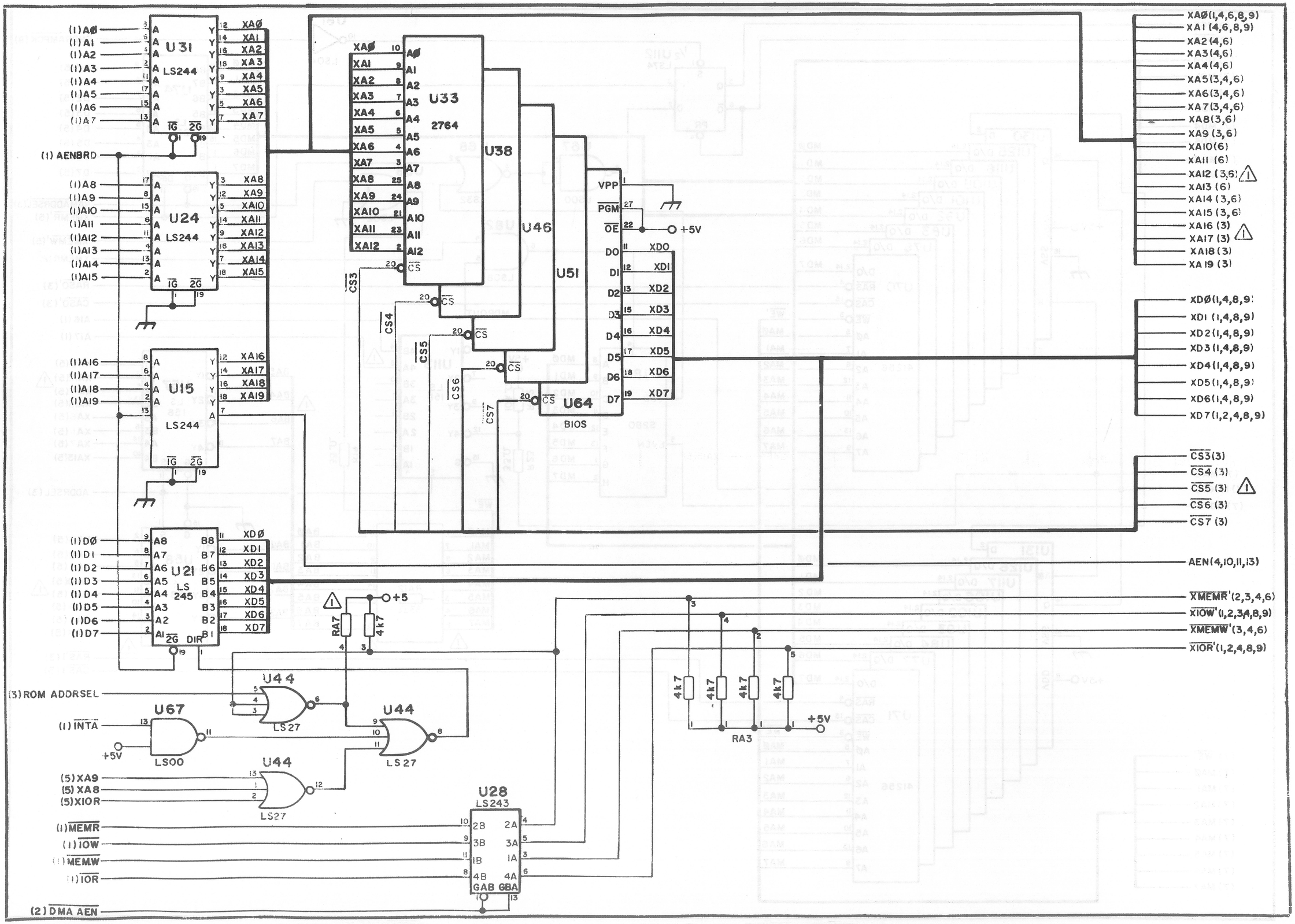
SUBSTITUI
DES. Nº A2-1381

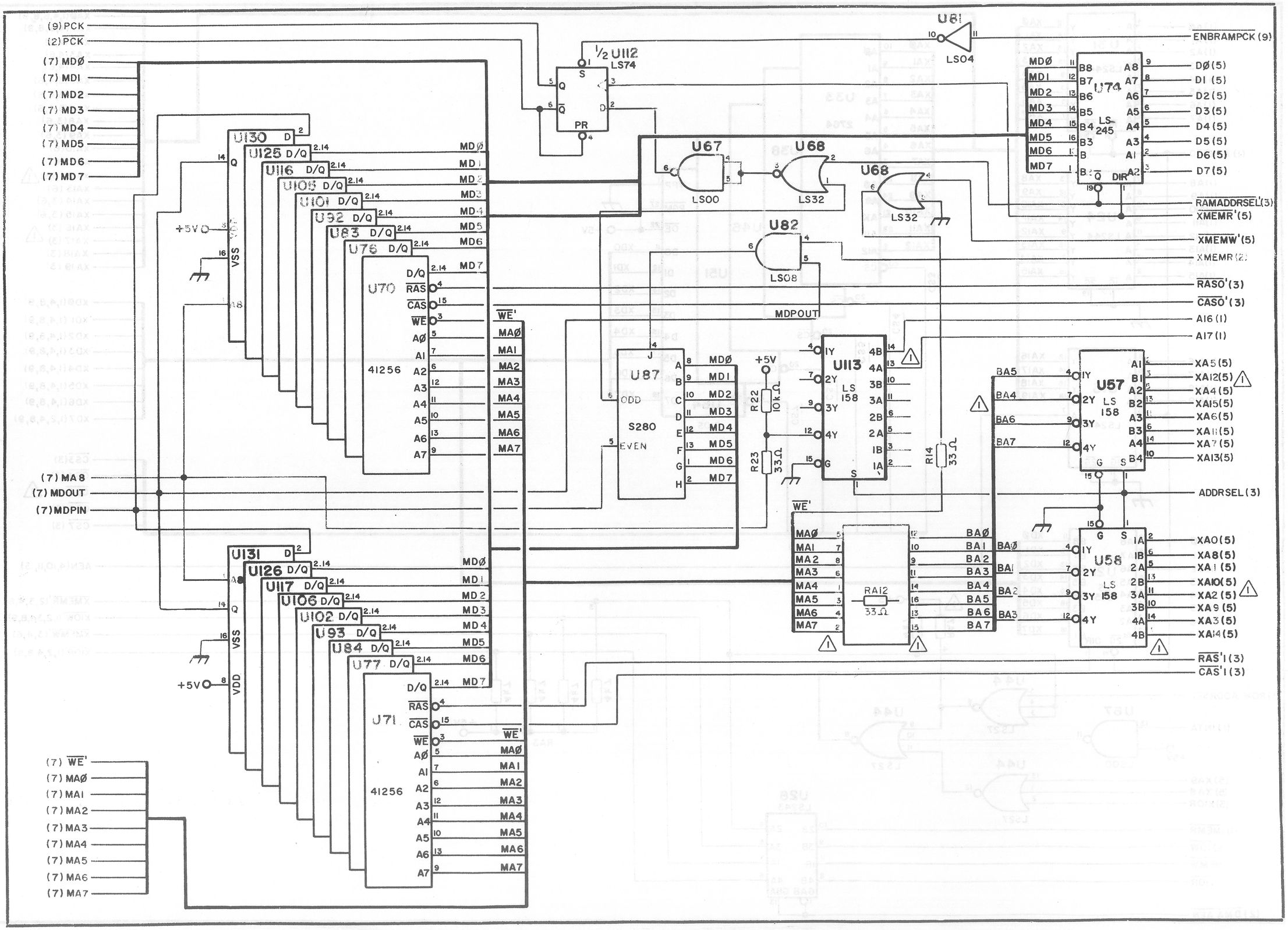

U13 LS 373
U22 LS244
U29 LS 373
U12 LS 245
U35 8088
U42 8087
SOCKET
U54 8288
U80 LS04
U61 8284
U37 8259
14.302MHZ
CT1 45p
C173 56pF
R18 510
R16 510
XTAL2
COLOR ADJUST
C42 100n
RA5 4K7
RA8 4K7
C90 100n
C69 100n
C170 100n
R19 100k
R20 100Ω
C121 10µF
IN4148
AENBRD
ALE
CLK88
RESET
READY
NMI
INTA
N.C.
NMI (2)
RDY/WAIT (2)
DMA/WAIT (2)
24M (10)
SPEED SEL (10)
IRQ Ø (8)
IRQ 1 (9)
IRQ 2 (10,13)
IRQ 3 (10,13)
IRQ 4 (10,13)
IRQ 5 (10,13)
IRQ 6 (10,11,13)
IRQ 7 (10,11)
INTRCS (3)
XIOR (5)
XIOW (5)
XAØ (5)
XDØ (5)
XD1 (5)
XD2 (5)
XD3 (5)
XD4 (5)
XD5 (5)
XD6 (5)
XD7 (5)
AENBRD (2,5)
AEN (2)

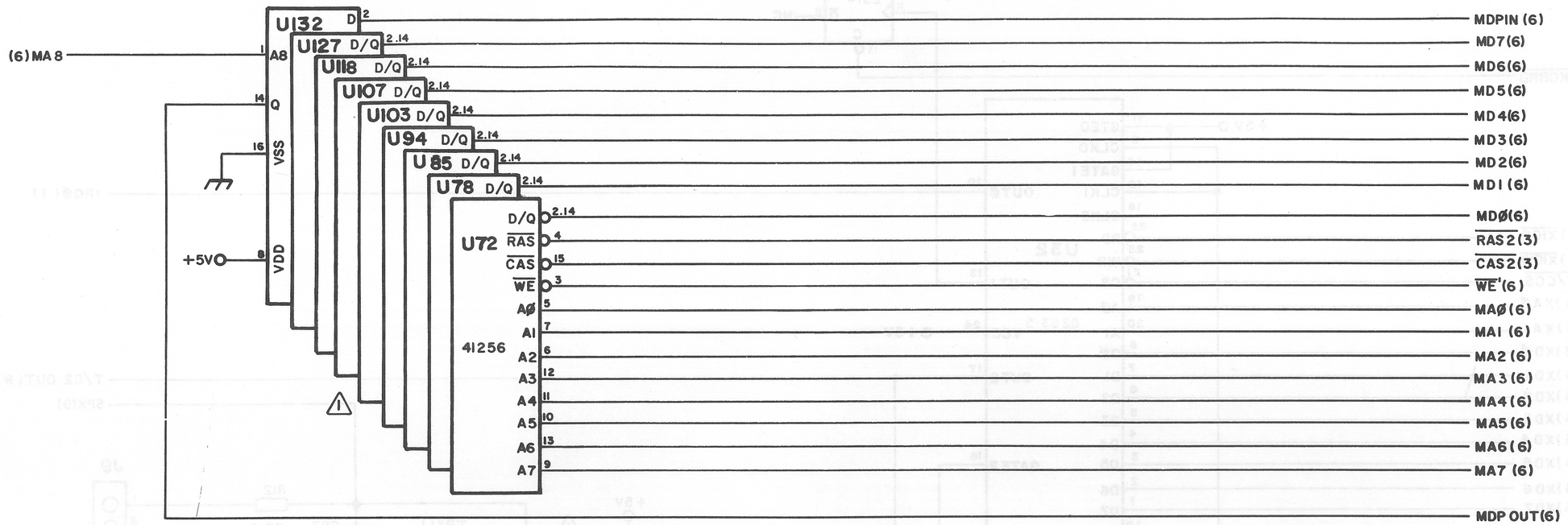

U122
(5) XMEMR
LS04
(10) I/O CHRDY
R24 6k8
+5V
U99
PR
½
S74
D
Q
CK
CLR
U91
LS 10
(5) XIOR
(5) XIOW
(4) DACKOBRD
U91
LS10
XMEMR (6)
U122
LS04
X MEMR (3)
RDY/WAIT (1)
U82
LS 08
RDYTODMA(4)
U97
LS00
DMAAEN(4,5)
U90
LS 175
AENBRD(1,5)
AEN (1,3)
DMAWAIT(1)
N.C.
N.C.
U100
½ LS74
HOLDA(4)
(1) LOCK
(1) S1
(1) S0
(4) HRQDMA
U98
LS 20
U122
LS04
U80
LS04
(1) RESET
(1) CLK88
U123
LS00
(1) N.P. NPI
(9) N.P.INSTLSW
(6) PCK
U91
LS10
U80
LS04
RESETDRV(10)
RESETDRV(8,9)
+5V
U112
PR
½ LS 74
CK
CLR
N.C.
C172
100n
U82
LS08
ALLOW NMI
NMI(1)
U97
S00
DCLK(4)
I/O CHCK(9)
(5) XD7
(3) WRTNMIREG
+5V
RA14
4K7
(10) I/O CHCK
U97
LS00
U80
LS04
(9) ENABLEI/OCK
U97
LS00
U81
LS04
(5) CLK
R13
33Ω
C112
100n

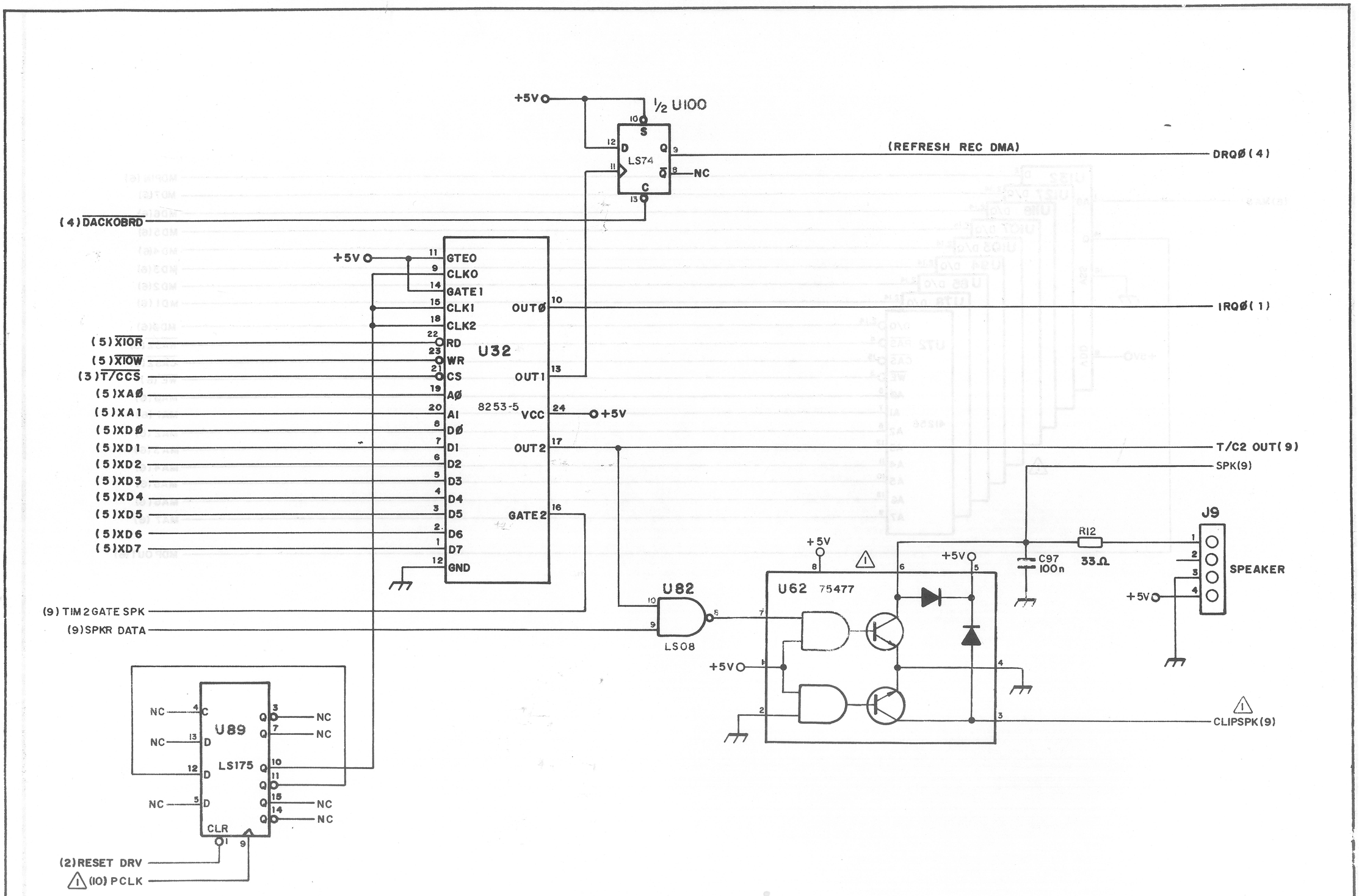

(4) DACKOBRD
(6) ADD REL
(5) XMEMR
(5) XMEMW
U123
LS00
+5V
OUT1
OUT2
IN
DELAY
DL1
U123
LS00
CAS
+5V
R 27
1kΩ
U124
LS 138
GI
G2B
G2A
A
B
C
Y0
Y1
Y2
Y3
RA11 33
CAS Ø (6)
CAS 1 (6)
CAS2 (7)
CAS 3 (7)
RAS Ø (6)
RAS 1 (6)
RAS 2 (7)
RAS 3 (7)
U67
LS00
U98
LS20
N.C.
+5V
(1) NWTC
(2) AEN
(2) XMEMR'
(6) RAM ADDSEL
(4) DACKØ
U114
S138
Y4
Y5
Y6
Y7
U115
S08
U123
LS00
REFRESH GATE
JP2
(1) A16
(1) A17
(1) A18
(1) A19
(9) PLANAR RAM Ø
(9) PLANAR RAM 1
U63
24S10
AØ
A1
A2
A3
A4
A5
A7
A6
S2
S1
U49
LS30
N.C.
XA16 (5)
XA17 (5)
XA18 (5)
XA19 (5)
(3) ROM ADDRSEL
(5) XA15
(5) XA14
(5) XA13
U45
LS138
C
B
A
G1
G2A
G2B
CSØ
CS1
CS2
NÃO USADO
CS3 (5)
CS4 (5)
CS5 (5)
CS6 (5)
CS7 (5)
(5) XA7
(5) XA6
(5) XA5
(5) XA9
(5) XA8
U50
LS138
N.C.
N.C.
DMACS' (4)
INTRCS (1)
T/CCS' (8)
PPICS' (9)
WRTNMIREG (2)
WRTDMAPGREG (4)
U68
LS32
U68
LS32
(5) XIOW'

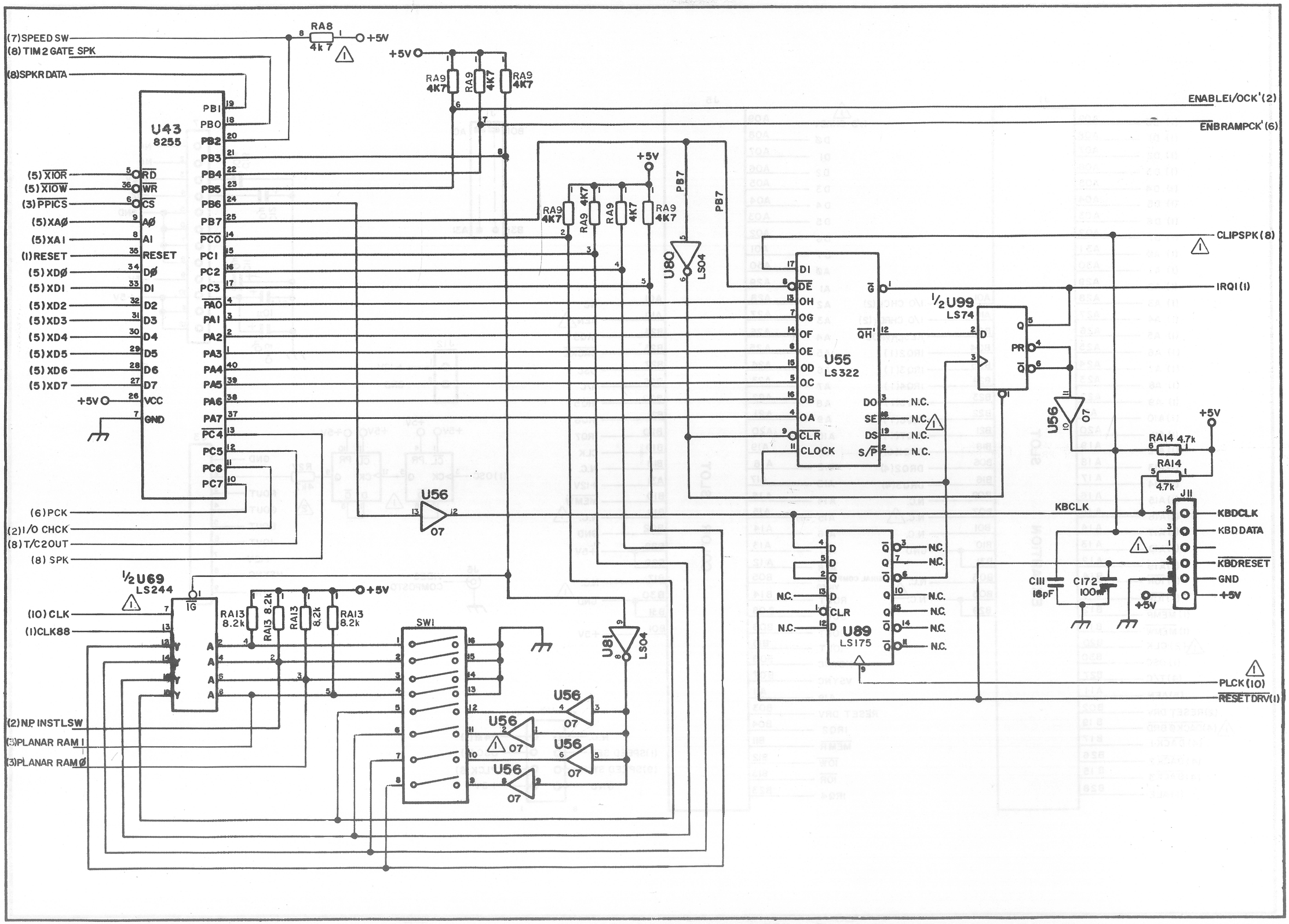

(5) XAØ
(5) XA1
(5) XA2
(5) XA3
(5) XA4
(5) XA5
(5) XA6
(5) XA7
(3) DMACS'
(2) RDYTODMA
(2) DLCK
(2) HOLDA
(5) XIOR'
(5) XIOW'
(5) XMEMR'
(5) XMEMW'
(8) DRQO
(10) DRQ1
(10,11) DRQ2
(10) DRQ3
(1) RESET
(5) XDØ
(5) XD1
(5) XD2
(5) XD3
(5) XD4
(5) XD5
(5) XD6
(5) XD7
(5) AEN
(2) DMAAEN'
(3) WRTDMAPGRES'
U36
8237A
XAØ 32 AØ
XA1 33 A1
XA2 34 A2
XA3 35 A3
11 CS
6 RDY
12 CLK
7 HLDA
1 IOR
2 IOW
3 MEMR
4 MEMW
19 DREQ0
18 DREQ1
17 DREQ2
16 DREQ3
13 RES
XDØ 30 DBØ
XD1 29 DB1
XD2 28 DB2
XD3 27 DB3
XD4 26 DB4
XD5 23 DB5
XD6 22 DB6
XD7 21 DB7
A4 37 XA4
A5 38 XA5
A6 39 XA6
A7 40 XA7
VCC 31
PIN5 5 +5V
GND 20
HRQ 10
EDP 36
DACK0 25
DACK1 24
DACK2 14
DACK3 15
ADSTB 8
AEN 9
XA1
XA0
U30
LS244
XA7 8 A
XA6 6 A
XA5 4 A
XA4 2 A
XA3 17 A
XA2 15 A
XA1 13 A
XAØ 11 A
TG 1
2G 19
12 A7 Y
14 A6 Y
16 A5 Y
18 A4 Y
3 A3 Y
5 A2 Y
7 A1 Y
9 AØ Y
+5V
R17
1k
U81
LS04
4 TERMINAL COUNT
U122
LS04
U14
LS670
XDØ 15 DI
XD1 1 D2
XD2 2 D3
XD3 3 D4
5 RA
4 RB
11 READ
XAØ 14 WA
XA1 13 WB
12 WRITE
Q1 10 A16
Q2 9 A17
Q3 7 A18
Q4 6 A19
U23
LS373
XD7 3 D
XD6 18 D
XD5 4 D
XD4 17 D
XD3 7 D
XD2 14 D
XD1 8 D
XDØ 13 D
2 Q A15
19 Q A14
5 Q A13
16 Q A12
8 Q A11
15 Q A10
9 Q A9
12 Q A8
OE 10
G 11
AØ (1)
A1 (1)
A2 (1)
A3 (1)
A4 (1)
A5 (1)
A6 (1)
A7 (1)
A8 (1)
A9 (1)
A10 (1)
A11 (1)
HRQDMA (2)
T/C (10,11)
DACKO (3)
DAOKOBRD (2,3,8,10)
DACK'1 (10,11)
DACK'2 (10)
DACK'3 (10)
A12 (1)
A13 (1)
A14 (1)
A15 (1)
A16 (1)
A17 (1)
A18 (1)
A19 (1)

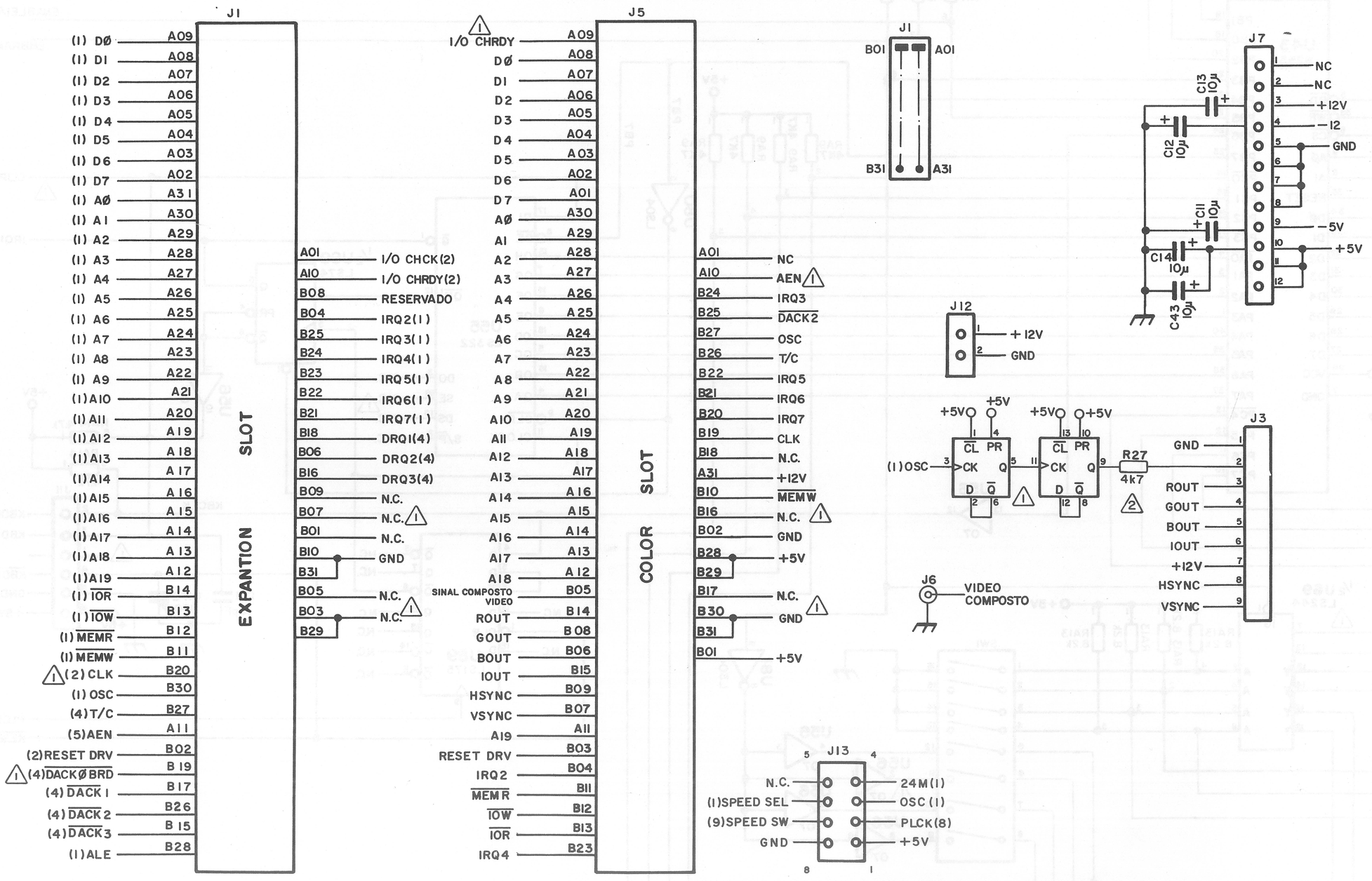

U31
LS244
U24
LS244
U15
LS244
U21
LS 245
U33
2764
U38
U46
U51
U64
BIOS
U44
LS27
U67
LS00
U28
LS243
RA7
4k7
RA3
(1) AENBRD
(3) ROM ADDRSEL
(1) INTA
(5) XA9
(5) XA8
(5) XIOR
(1) MEMR
(1) IOW
(1) MEMW
(1) IOR
(2) DMA AEN
XA0(1,4,6,8,9)
XA1 (4,6,8,9)
XA2 (4,6)
XA3 (4,6)
XA4 (4,6)
XA5 (3,4,6)
XA6 (3,4,6)
XA7 (3,4,6)
XA8 (3,6)
XA9 (3,6)
XA10 (6)
XA11 (6)
XA12 (3,6)
XA13 (6)
XA14 (3,6)
XA15 (3,6)
XA16 (3)
XA17 (3)
XA18 (3)
XA19 (3)
XD0(1,4,8,9)
XD1 (1,4,8,9)
XD2 (1,4,8,9)
XD3 (1,4,8,9)
XD4 (1,4,8,9)
XD5 (1,4,8,9)
XD6 (1,4,8,9)
XD7 (1,2,4,8,9)
CS3 (3)
CS4 (3)
CS5 (3)
CS6 (3)
CS7 (3)
AEN(4,10,11,13)
XMEMR (2,3,4,6)
XIOW (1,2,3,4,8,9)
XMEMW (3,4,6)
XIOR (1,2,4,8,9)
+5
+5V

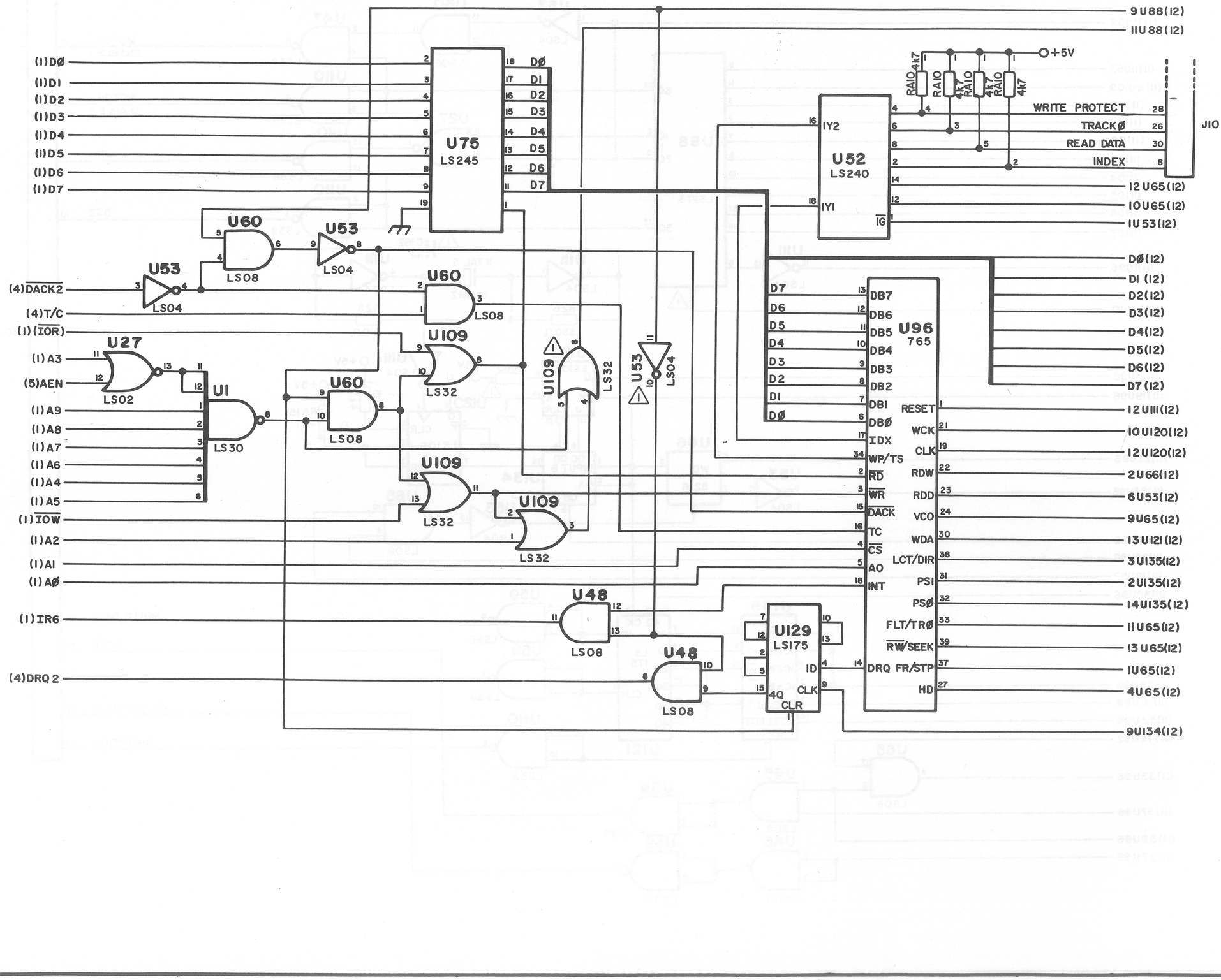

(9) PCK
(2) PCK
(7) MDØ
(7) MD1
(7) MD2
(7) MD3
(7) MD4
(7) MD5
(7) MD6
(7) MD7
(7) MA8
(7) MDOUT
(7) MDPIN
(7) WE'
(7) MAØ
(7) MA1
(7) MA2
(7) MA3
(7) MA4
(7) MA5
(7) MA6
(7) MA7
+5V
VSS
VDD
U130 D
U125 D/Q
U116 D/Q
U105 D/Q
U101 D/Q
U92 D/Q
U83 D/Q
U76 D/Q
U70
41256
RAS
CAS
WE
U131 D
U126 D/Q
U117 D/Q
U106 D/Q
U102 D/Q
U93 D/Q
U84 D/Q
U77 D/Q
U71
1/2 U112 LS74
U81 LS04
U67 LS00
U68 LS32
U68 LS32
U82 LS08
MDPOUT
U87 S280
ODD
EVEN
R22 10kΩ
R23 33Ω
U113 LS 158
R14 33Ω
RA12 33Ω
U74 LS 245
U57 LS 158
U58 LS 158
ENBRAMPCK (9)
RAMADDRSEL(3)
XMEMR'(5)
XMEMW'(5)
XMEMR(2)
RAS0'(3)
CAS0'(3)
AI6 (1)
AI7 (1)
ADDRSEL(3)
RAS1'(3)
CAS1'(3)
D0(5)
D1 (5)
D2(5)
D3(5)
D4(5)
D5(5)
D6(5)
D7(5)
XA5(5)
XA12(5)
XA4(5)
XA15(5)
XA6(5)
XA11(5)
XA7(5)
XA13(5)
XA0(5)
XA8(5)
XA1(5)
XA10(5)
XA2(5)
XA9(5)
XA3(5)
XA14(5)

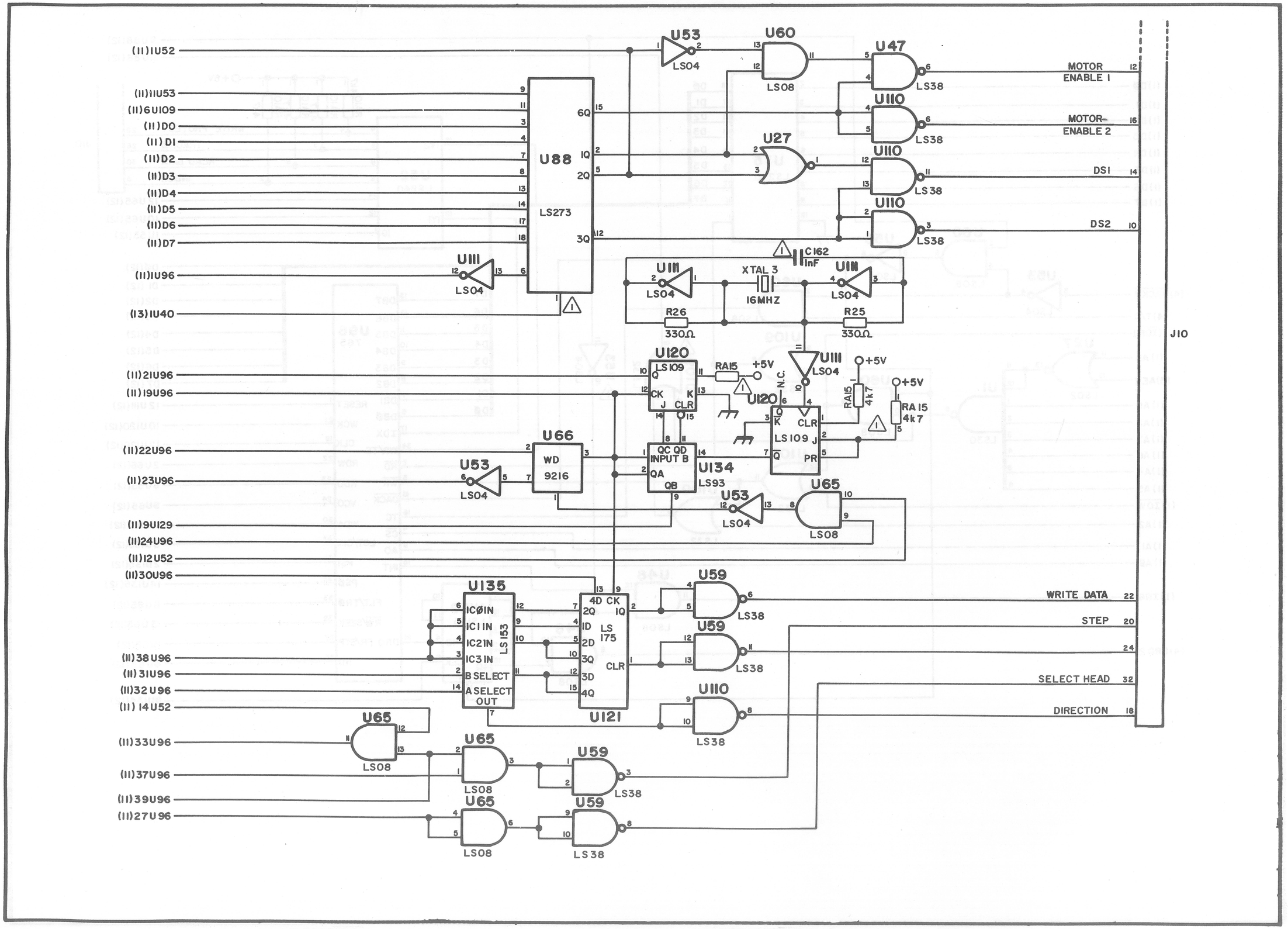

U132 D
U127 D/Q
U118 D/Q
U107 D/Q
U103 D/Q
U94 D/Q
U85 D/Q
U78 D/Q
U72
41256
D/Q
RAS
CAS
WE
A0
A1
A2
A3
A4
A5
A6
A7
A8
Q
VSS
VDD
(6)MA 8
+5V
2.14
4
15
3
5
7
6
12
11
10
13
9
1
14
16
8
MDPIN (6)
MD7(6)
MD6(6)
MD5(6)
MD4(6)
MD3(6)
MD2(6)
MD1 (6)
MD0(6)
RAS2(3)
CAS2(3)
WE'(6)
MA0(6)
MA1 (6)
MA2 (6)
MA3 (6)
MA4 (6)
MA5 (6)
MA6 (6)
MA7 (6)
MDP OUT(6)

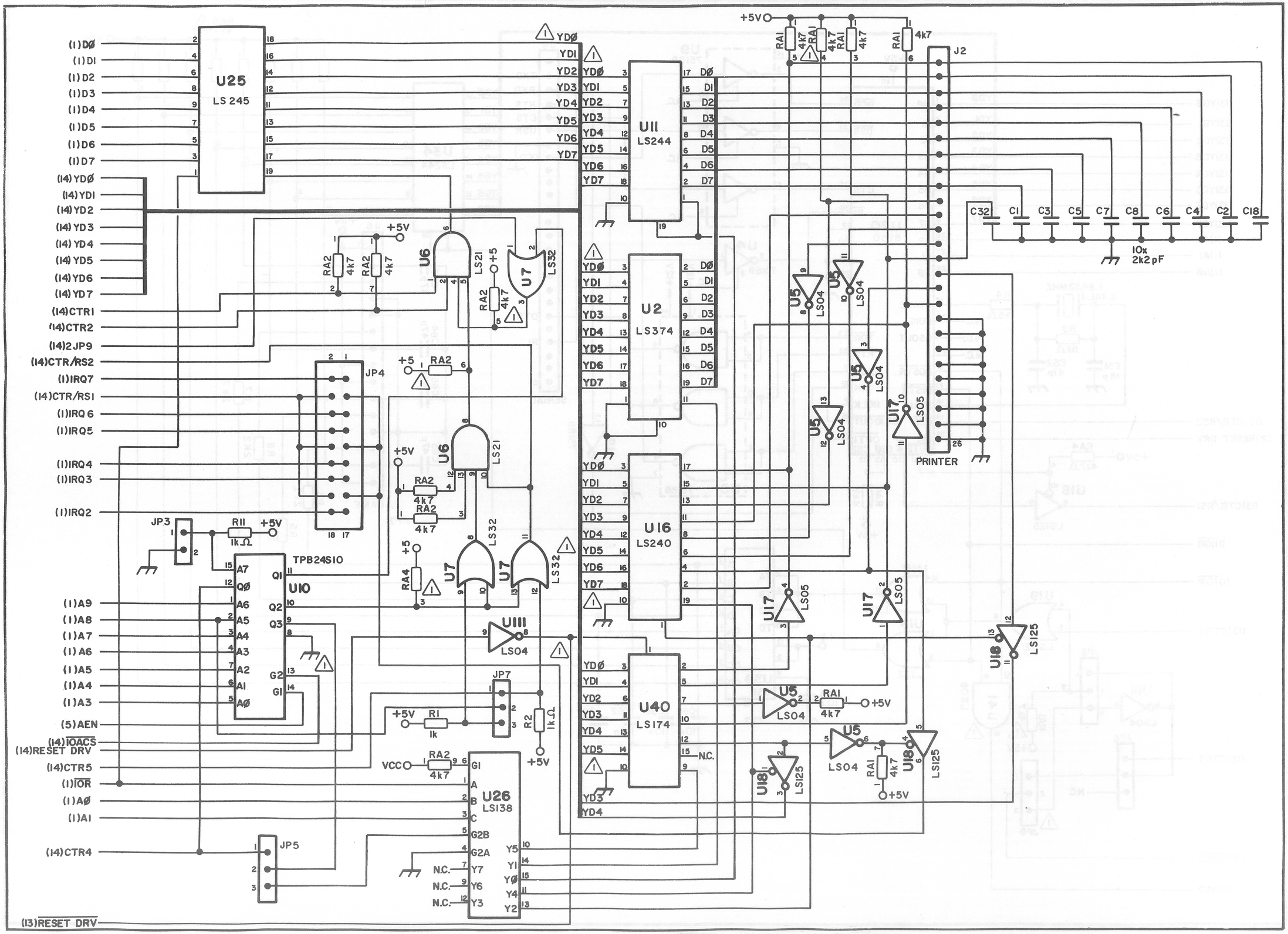

+5V
½ U100
10 S
12 D
11
LS74
Q 3
Q̄ 8
C
13
NC
(REFRESH REC DMA)
DRQØ(4)
(4) DACKOBRD
+5V
11 GTEO
9 CLKO
14 GATE1
15 CLK1
18 CLK2
22 RD
23 WR
21 CS
19 AØ
20 A1
8 DØ
7 D1
6 D2
5 D3
4 D4
3 D5
2 D6
1 D7
12 GND
U32
8253-5
OUTØ 10
OUT1 13
VCC 24
+5V
OUT2 17
GATE2 16
IRQØ(1)
T/C2 OUT(9)
SPK(9)
(5) XIOR
(5) XIOW
(3) T/CCS
(5) XAØ
(5) XA1
(5) XDØ
(5) XD1
(5) XD2
(5) XD3
(5) XD4
(5) XD5
(5) XD6
(5) XD7
(9) TIM2GATE SPK
(9) SPKR DATA
U82
LS08
+5V
U62 75477
C97
100n
R12
33Ω
J9
SPEAKER
CLIPSPK(9)
U89
LS175
NC
CLR
(2) RESET DRV
(10) PCLK

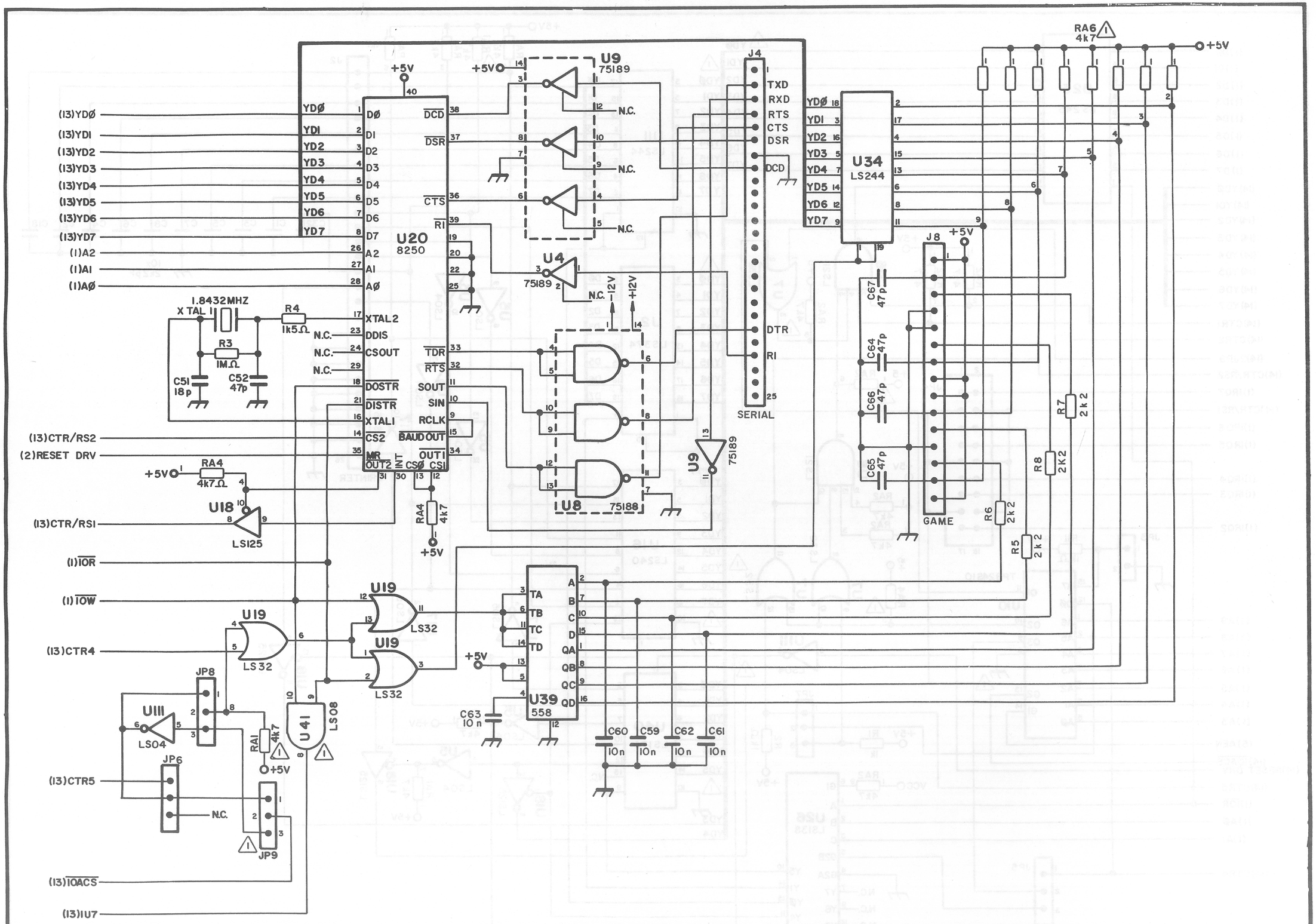

(7)SPEED SW
(8)TIM 2 GATE SPK
(8)SPKR DATA
RA8
4k7
+5V
U43
8255
PB1
PB0
PB2
PB3
PB4
PB5
PB6
PB7
PC0
PC1
PC2
PC3
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PC4
PC5
PC6
PC7
(5) XIOR
(5) XIOW
(3) PPICS
(5) XAØ
(5) XA1
(1) RESET
(5) XDØ
(5) XD1
(5) XD2
(5) XD3
(5) XD4
(5) XD5
(5) XD6
(5) XD7
RD
WR
CS
AØ
A1
RESET
DØ
D1
D2
D3
D4
D5
D6
D7
VCC
GND
RA9 4K7
ENABLE1/OCK'(2)
ENBRAMPCK'(6)
U80
LS04
PB7
U55
LS322
DI
DE
OH
OG
OF
OE
OD
OC
OB
OA
CLR
CLOCK
N.C.
SE
DS
S/P
CLIPSPK(8)
IRQ1(1)
1/2 U99
LS74
D
Q
PR
CL
QH'
U56
07
RA14 4.7k
KBCLK
J11
KBDCLK
KBD DATA
KBDRESET
GND
+5V
C111
18pF
C172
100pF
U89
LS175
PLCK(10)
RESET DRV(1)
(6) PCK
(2) I/O CHCK
(8) T/C2OUT
(8) SPK
1/2 U69
LS244
1G
(10) CLK
(1) CLK88
RA13 8.2k
SW1
U81
LS04
(2) N.P. INSTLSW
(3) PLANAR RAM 1
(3) PLANAR RAMØ

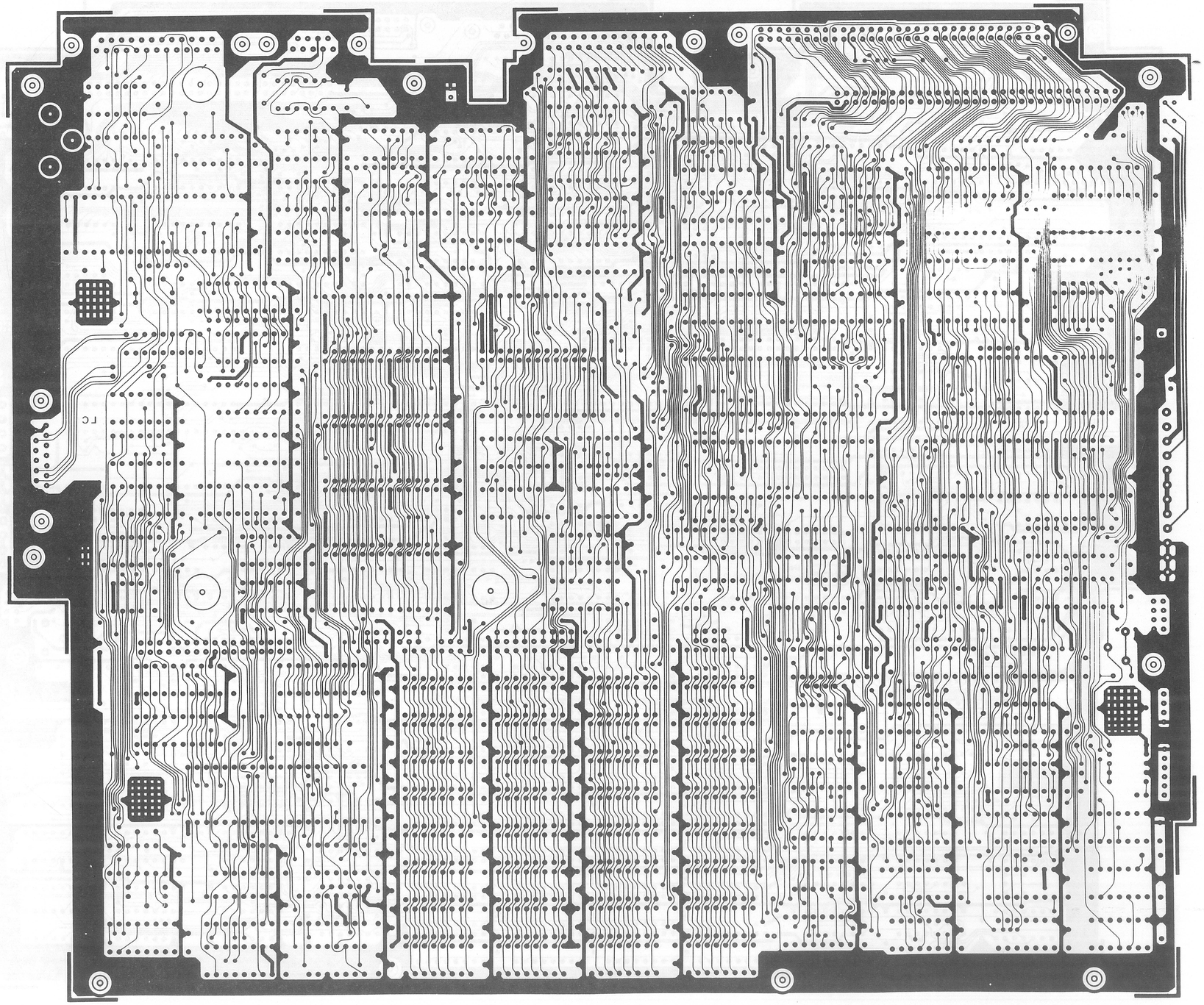

J1
(1) DØ A09
(1) D1 A08
(1) D2 A07
(1) D3 A06
(1) D4 A05
(1) D5 A04
(1) D6 A03
(1) D7 A02
(1) AØ A31
(1) A1 A30
(1) A2 A29
(1) A3 A28
(1) A4 A27
(1) A5 A26
(1) A6 A25
(1) A7 A24
(1) A8 A23
(1) A9 A22
(1) A10 A21
(1) A11 A20
(1) A12 A19
(1) A13 A18
(1) A14 A17
(1) A15 A16
(1) A16 A15
(1) A17 A14
(1) A18 A13
(1) A19 A12
(1) IOR B14
(1) IOW B13
(1) MEMR B12
(1) MEMW B11
(2) CLK B20
(1) OSC B30
(4) T/C B27
(5) AEN A11
(2) RESET DRV B02
(4) DACKØ BRD B19
(4) DACK1 B17
(4) DACK2 B26
(4) DACK3 B15
(1) ALE B28
EXPANTION SLOT
A01 I/O CHCK(2)
A10 I/O CHRDY(2)
B08 RESERVADO
B04 IRQ2(1)
B25 IRQ3(1)
B24 IRQ4(1)
B23 IRQ5(1)
B22 IRQ6(1)
B21 IRQ7(1)
B18 DRQ1(4)
B06 DRQ2(4)
B16 DRQ3(4)
B09 N.C.
B07 N.C.
B01 N.C.
B10 GND
B31
B05 N.C.
B03 N.C.
B29
J5
I/O CHRDY A09
DØ A08
D1 A07
D2 A06
D3 A05
D4 A04
D5 A03
D6 A02
D7 A01
AØ A30
A1 A29
A2 A28
A3 A27
A4 A26
A5 A25
A6 A24
A7 A23
A8 A22
A9 A21
A10 A20
A11 A19
A12 A18
A13 A17
A14 A16
A15 A15
A16 A14
A17 A13
A18 A12
SINAL COMPOSTO VIDEO B05
ROUT B14
GOUT B08
BOUT B06
IOUT B15
HSYNC B09
VSYNC B07
A19 A11
RESET DRV B03
IRQ2 B04
MEMR B11
IOW B12
IOR B13
IRQ4 B23
COLOR SLOT
A01 NC
A10 AEN
B24 IRQ3
B25 DACK2
B27 OSC
B26 T/C
B22 IRQ5
B21 IRQ6
B20 IRQ7
B19 CLK
B18 N.C.
A31 +12V
B10 MEMW
B16 N.C.
B02 GND
B28 +5V
B29
B17 N.C.
B30 GND
B31
B01 +5V
J1
B01 A01
B31 A31
J12
1 +12V
2 GND
J7
C13 10µ
C12 10µ
C11 10µ
C14 10µ
C43 10µ
1 NC
2 NC
3 +12V
4 -12
5 GND
6
7
8
9 -5V
10 +5V
11
12
+5V
+5V
+5V
+5V
CL PR
CK Q
D Q
(1) OSC
R27
4k7
J3
GND 1
2
ROUT 3
GOUT 4
BOUT 5
IOUT 6
+12V 7
HSYNC 8
VSYNC 9
J6
VIDEO COMPOSTO
J13
N.C.
(1) SPEED SEL
(9) SPEED SW
GND
24M(1)
OSC(1)
PLCK(8)
+5V

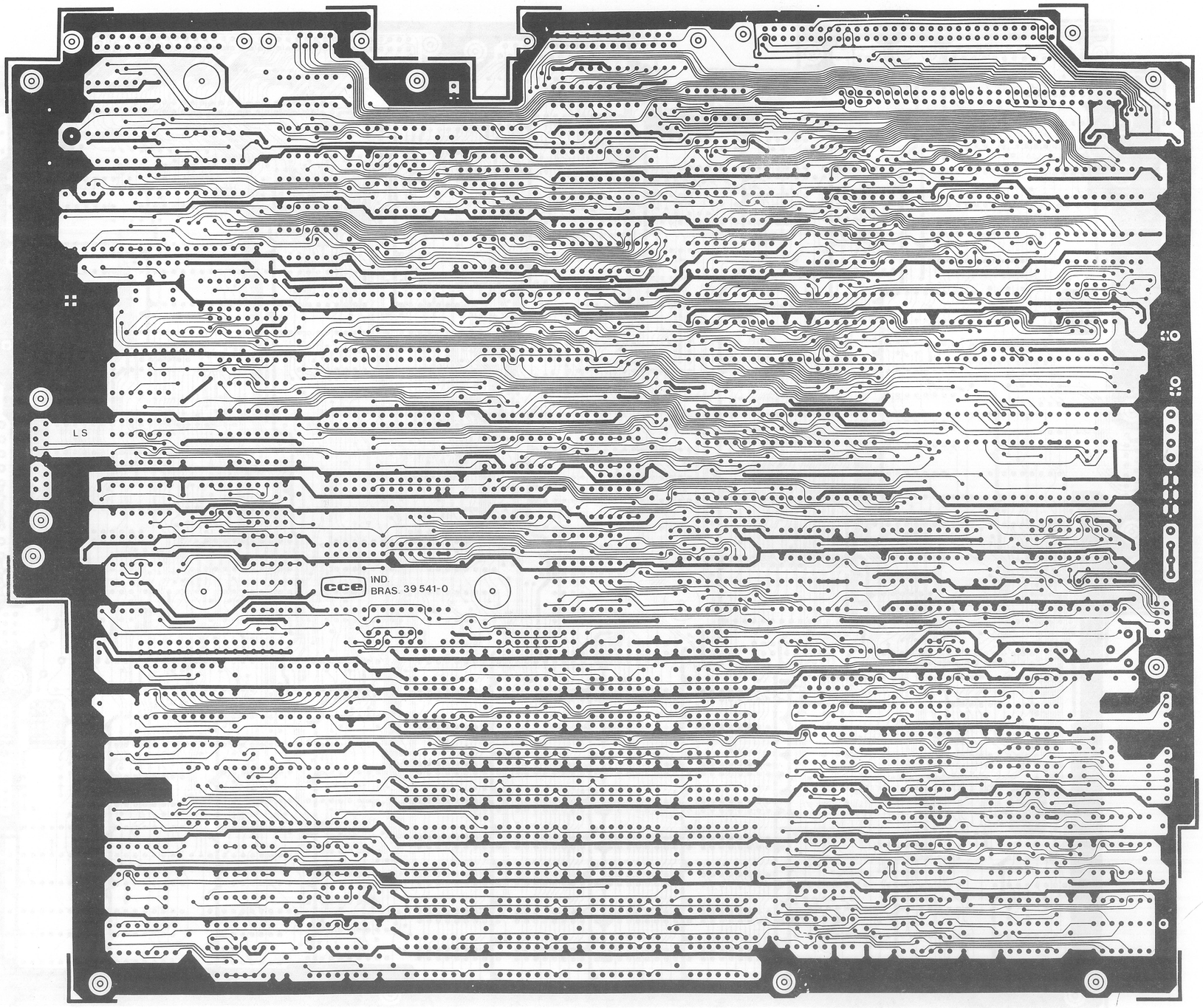

(1)DØ
(1)D1
(1)D2
(1)D3
(1)D4
(1)D5
(1)D6
(1)D7
U75
LS245
DØ
D1
D2
D3
D4
D5
D6
D7
9U88(12)
11U88(12)
+5V
RAIO 4k7
RAIO
4k7 RAIO
4k7 RAIO
4k7
WRITE PROTECT
TRACKØ
READ DATA
INDEX
JIO
U52
LS240
1Y2
1Y1
1G
12U65(12)
10U65(12)
1U53(12)
U60
LS08
U53
LS04
(4)DACK2
(4)T/C
(1)(IOR)
DØ(12)
D1(12)
D2(12)
D3(12)
D4(12)
D5(12)
D6(12)
D7(12)
U96
765
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DBØ
IDX
WP/TS
RD
WR
DACK
TC
CS
AO
INT
RESET
WCK
CLK
RDW
RDD
VCO
WDA
LCT/DIR
PSI
PSØ
FLT/TRØ
RW/SEEK
DRQ FR/STP
HD
12U111(12)
10U120(12)
12U120(12)
2U66(12)
6U53(12)
9U65(12)
13U121(12)
3U135(12)
2U135(12)
14U135(12)
11U65(12)
13U65(12)
1U65(12)
4U65(12)
U27
LS02
(1)A3
(5)AEN
U1
LS30
(1)A9
(1)A8
(1)A7
(1)A6
(1)A4
(1)A5
(1)IOW
(1)A2
(1)A1
(1)AØ
U109
LS32
U48
LS08
(1)IR6
(4)DRQ2
U129
LS175
ID
4Q
CLR
9U134(12)

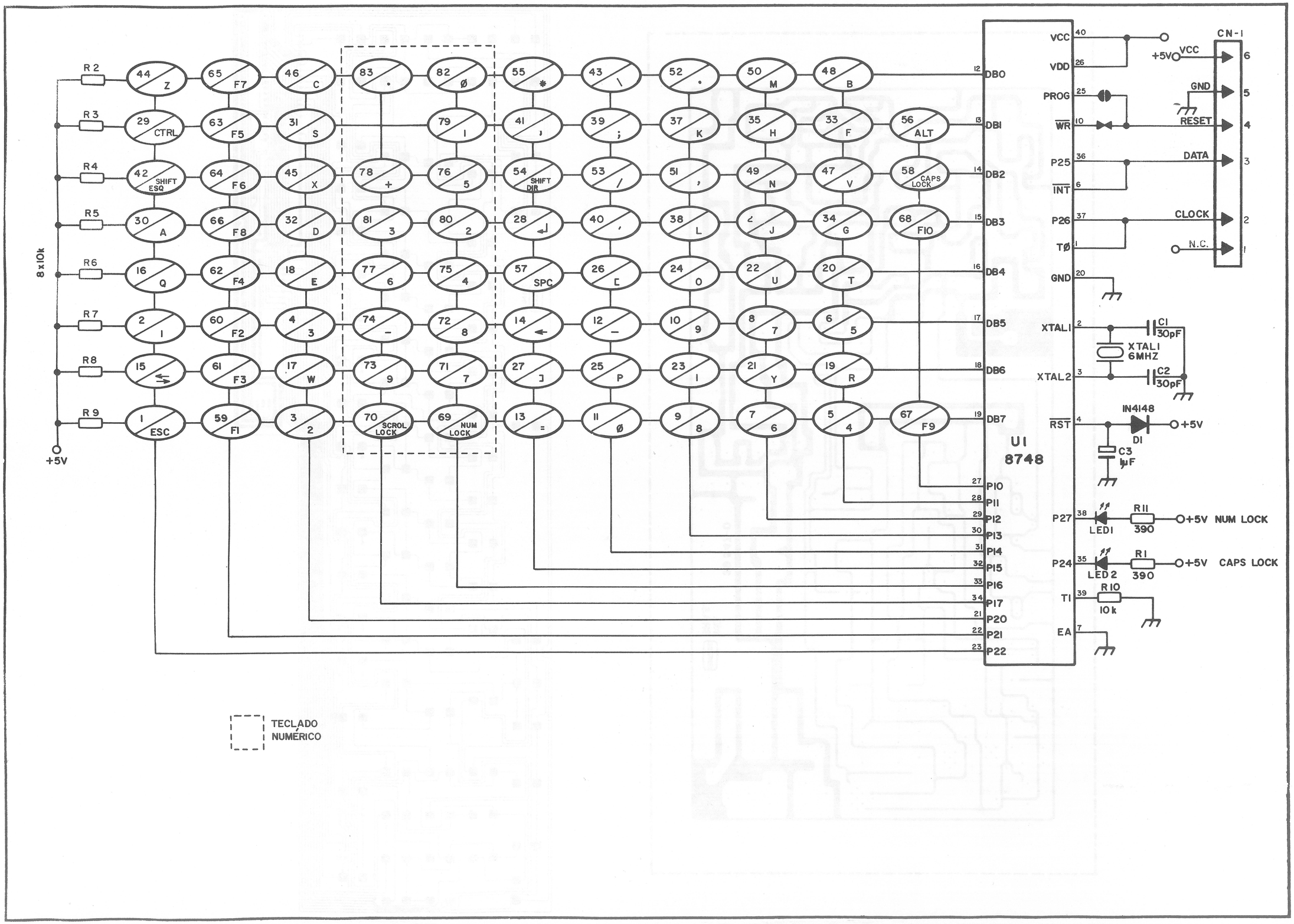

(11)1U52
(11)11U53
(11)6U109
(11)DO
(11) D1
(11)D2
(11)D3
(11)D4
(11)D5
(11)D6
(11)D7
(11)1U96
(13)1U40
U88
LS273
6Q
1Q
2Q
3Q
U53
LS04
U60
LS08
U47
LS38
U110
LS38
U27
U110
LS38
U110
LS38
MOTOR ENABLE 1
MOTOR-ENABLE 2
DS1
DS2
C162 1nF
U111
LS04
XTAL 3
16MHZ
U111
LS04
R26
330Ω
R25
330Ω
U120
LS109
RA15
+5V
U111
LS04
+5V
+5V
RA15 4k7
RA15 4k7
U120
LS109 J
K CLR
PR
Q
(11)2U96
(11)19U96
(11)22U96
(11)23U96
(11)9U129
(11)24U96
(11)12U52
(11)30U96
U66
WD 9216
U53
LS04
QC QD INPUT B
QA QB
U134
LS93
U53
LS04
U65
LS08
U135
LS153
IC0IN
IC1IN
IC2IN
IC3IN
B SELECT
A SELECT OUT
U121
LS 175
4D CK
2Q 1Q
ID
2D
3Q
3D
4Q
CLR
U59
LS38
U59
LS38
U110
LS38
(11)38U96
(11)31U96
(11)32U96
(11) 14U52
(11)33U96
(11)37U96
(11)39U96
(11)27U96
U65
LS08
U65
LS08
U59
LS38
U65
LS08
U59
LS38
WRITE DATA
STEP
SELECT HEAD
DIRECTION
J10

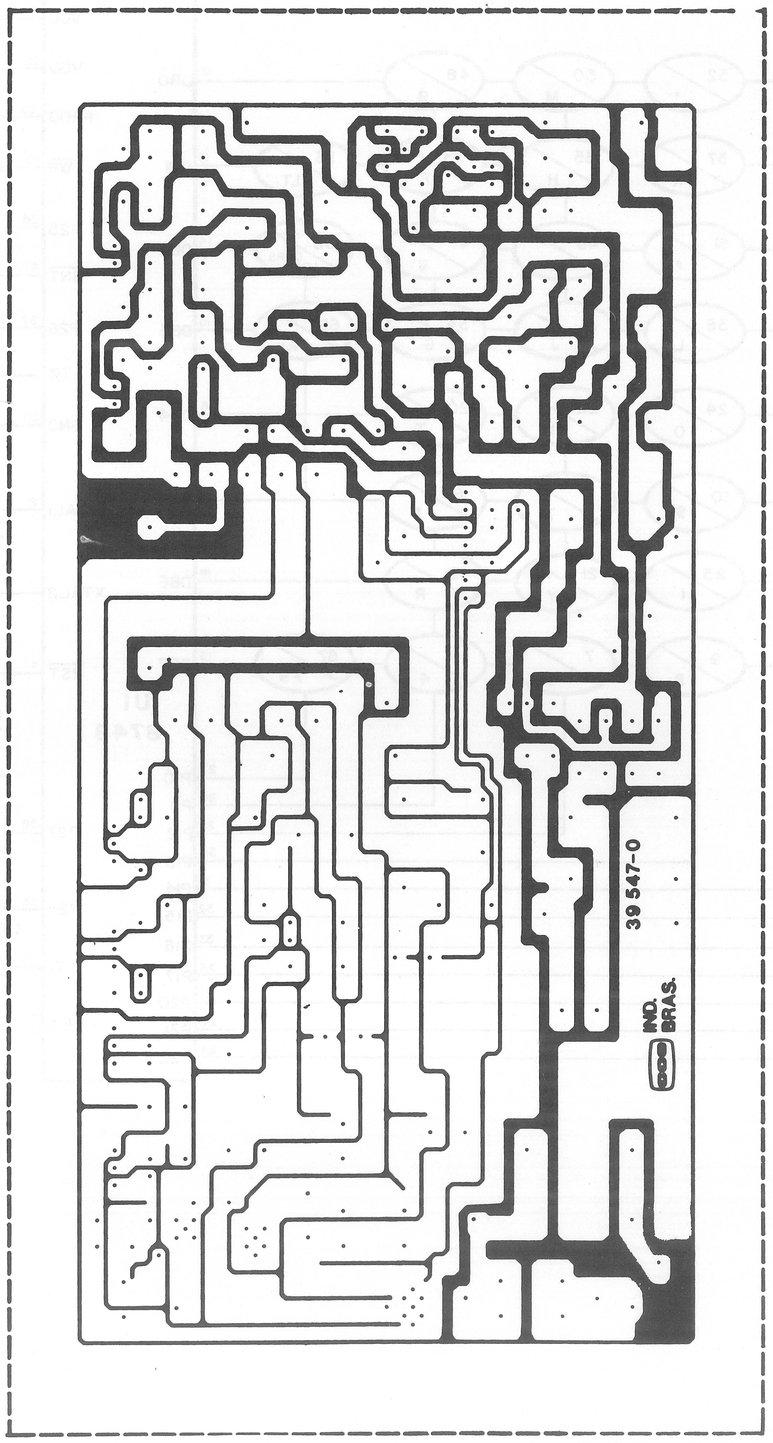

U25
LS 245
U11
LS244
U2
LS374
U16
LS240
U40
LS174
U10
TPB24S10
U26
LS138
U6
LS21
U7
LS32
U111
LS04
U5
LS04
U17
LS05
U18
LS125
J2
PRINTER
JP3
JP4
JP5
JP7
RA1
RA2
4k7
R1
R2
RA4
1k Ω
+5V
VCC
10x
2k2pF
C32
C1
C3
C5
C7
C8
C6
C4
C2
C18
(1)DØ
(1)DI
(1)D2
(1)D3
(1)D4
(1)D5
(1)D6
(1)D7
(14)YDØ
(14)YDI
(14)YD2
(14)YD3
(14)YD4
(14)YD5
(14)YD6
(14)YD7
(14)CTRI
(14)CTR2
(14)2JP9
(14)CTR/RS2
(1)IRQ7
(14)CTR/RSI
(1)IRQ6
(1)IRQ5
(1)IRQ4
(1)IRQ3
(1)IRQ2
(1)A9
(1)A8
(1)A7
(1)A6
(1)A5
(1)A4
(1)A3
(5)AEN
(14)IOACS
(14)RESET DRV
(14)CTR5
(1)IOR
(1)AØ
(1)AI
(14)CTR4
(13)RESET DRV
N.C.

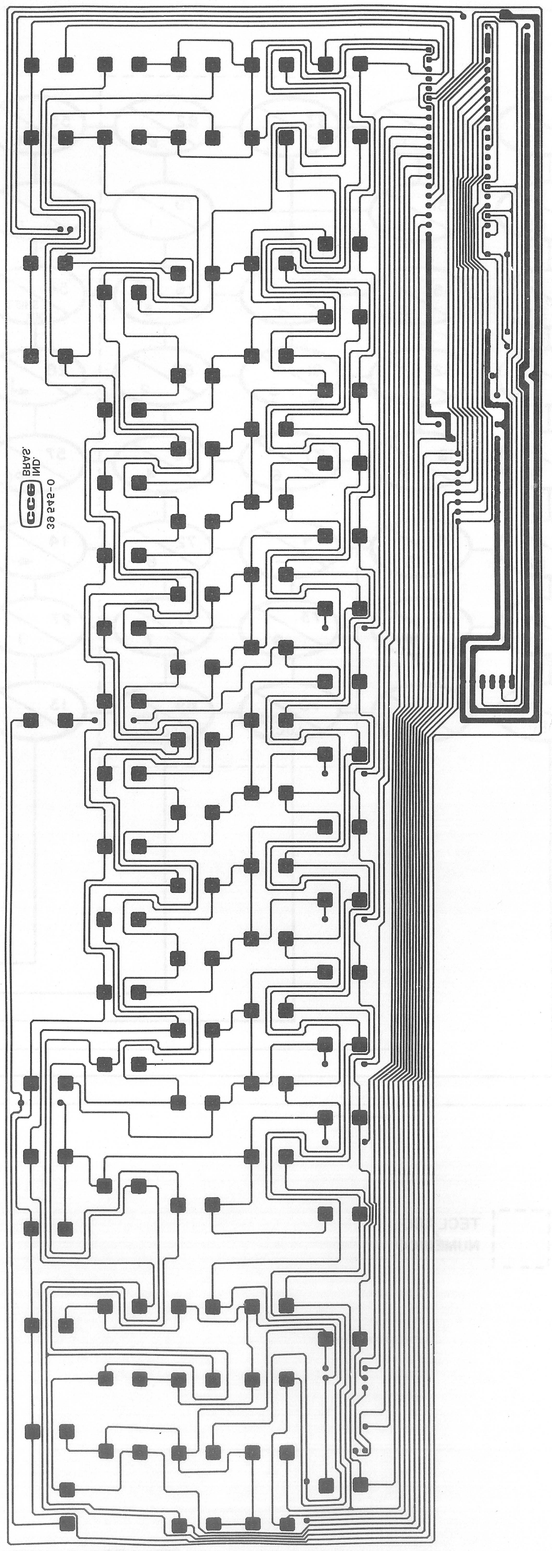

U20
8250
U9
75189
U4
75189
U8
75188
U34
LS244
J4
SERIAL
J8
GAME
U18
LS125
U19
LS32
U111
LS04
U41
LS08
U39
558
RA6
4k7
RA4
4k7
1.8432MHZ
X TAL
R4
1k5Ω
R3
1MΩ
C51
18p
C52
47p
JP8
JP6
JP9
RA1
4k7
C63
10n
C60
10n
C59
10n
C62
10n
C61
10n
C67
47p
C64
47p
C66
47p
C65
47p
R7
2k2
R8
2K2
R6
2k2
R5
2k2
+5V
+12V
-12V
N.C.
TXD
RXD
RTS
CTS
DSR
DCD
DTR
RI
(13)YDØ
(13)YDI
(13)YD2
(13)YD3
(13)YD4
(13)YD5
(13)YD6
(13)YD7
(1)A2
(1)AI
(1)AØ
(13)CTR/RS2
(2)RESET DRV
(13)CTR/RSI
(1)IOR
(1)IOW
(13)CTR4
(13)CTR5
(13)IOACS
(13)IU7

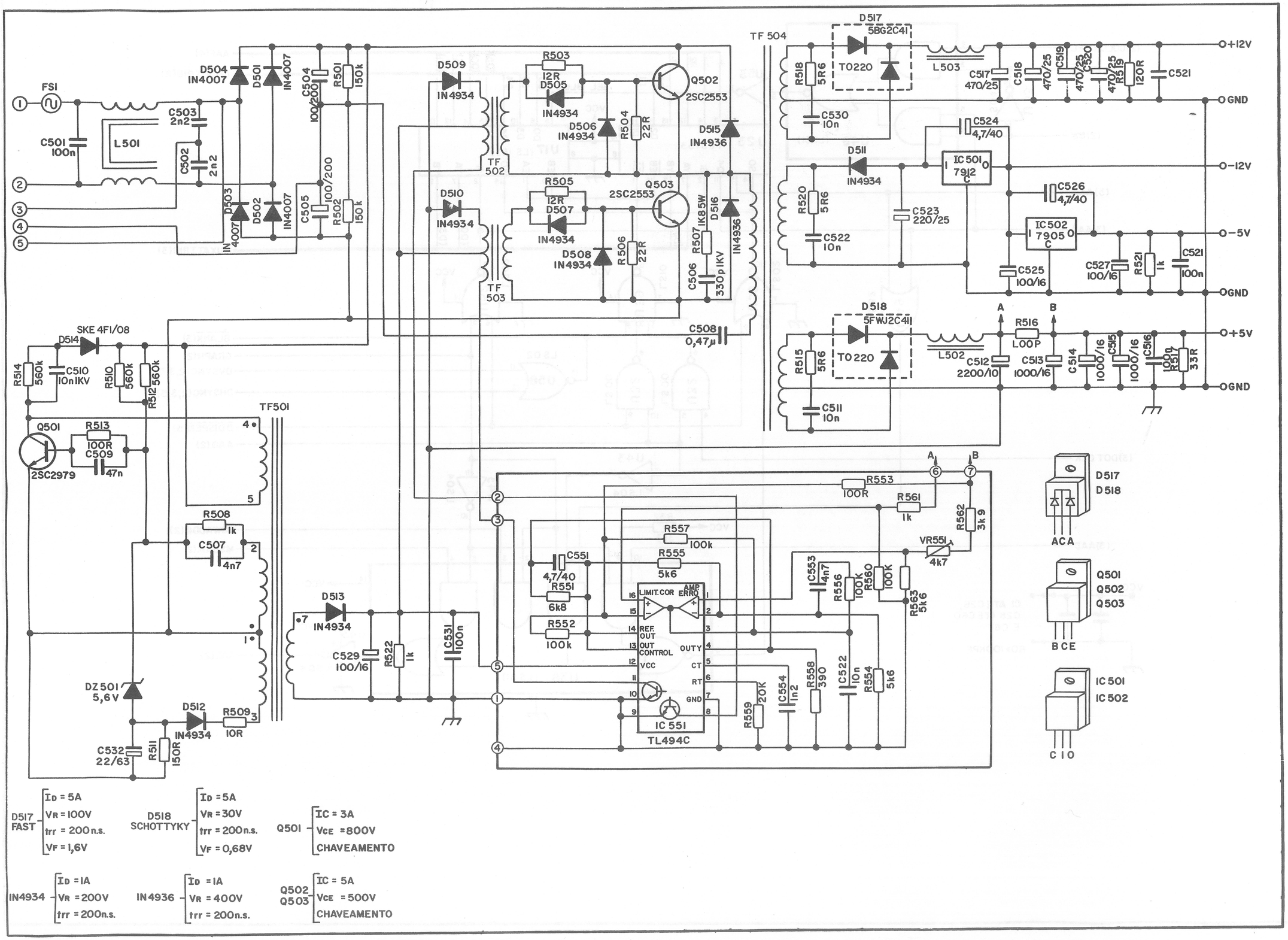



LS
cce
IND.
BRAS. 39 541-0


R2
R3
R4
R5
R6
R7
R8
R9
8x10k
+5V
44 Z
65 F7
46 C
83 .
82 Ø
55 *
43 \
52 ,
50 M
48 B
29 CTRL
63 F5
31 S
79 I
41 ,
39 ;
37 K
35 H
33 F
56 ALT
42 SHIFT ESQ
64 F6
45 X
78 +
76 5
54 SHIFT DIR
53 /
51 ,
49 N
47 V
58 CAPS LOCK
30 A
66 F8
32 D
81 3
80 2
28 ↵
40 ,
38 L
36 J
34 G
68 F10
16 Q
62 F4
18 E
77 6
75 4
57 SPC
26 [
24 O
22 U
20 T
2 1
60 F2
4 3
74 -
72 8
14 ←
12 -
10 9
8 7
6 5
15
61 F3
17 W
73 9
71 7
27]
25 P
23 I
21 Y
19 R
1 ESC
59 F1
3 2
70 SCROL LOCK
69 NUM LOCK
13 =
11 Ø
9 8
7 6
5 4
67 F9
U1
8748
12 DB0
13 DB1
14 DB2
15 DB3
16 DB4
17 DB5
18 DB6
19 DB7
27 P10
28 P11
29 P12
30 P13
31 P14
32 P15
33 P16
34 P17
21 P20
22 P21
23 P22
VCC 40
VDD 26
PROG 25
WR 10
P25 36
INT 6
P26 37
TØ 1
GND 20
XTAL1 2
XTAL2 3
RST 4
P27 38
P24 35
T1 39
EA 7
CN-1
+5V VCC
GND
RESET
DATA
CLOCK
N.C.
C1 30pF
XTAL1 6MHZ
C2 30pF
IN4148
D1
C3 1µF
+5V
LED1
R11 390
+5V NUM LOCK
LED2
R1 390
+5V CAPS LOCK
R10 10k
TECLADO NUMÉRICO


39 547-0
IND.
BRAS.


39 542-0
IND.
BRAS.



D517 FAST — I_D = 5A; V_R = 100V; t_{rr} = 200 n.s.; V_F = 1,6V

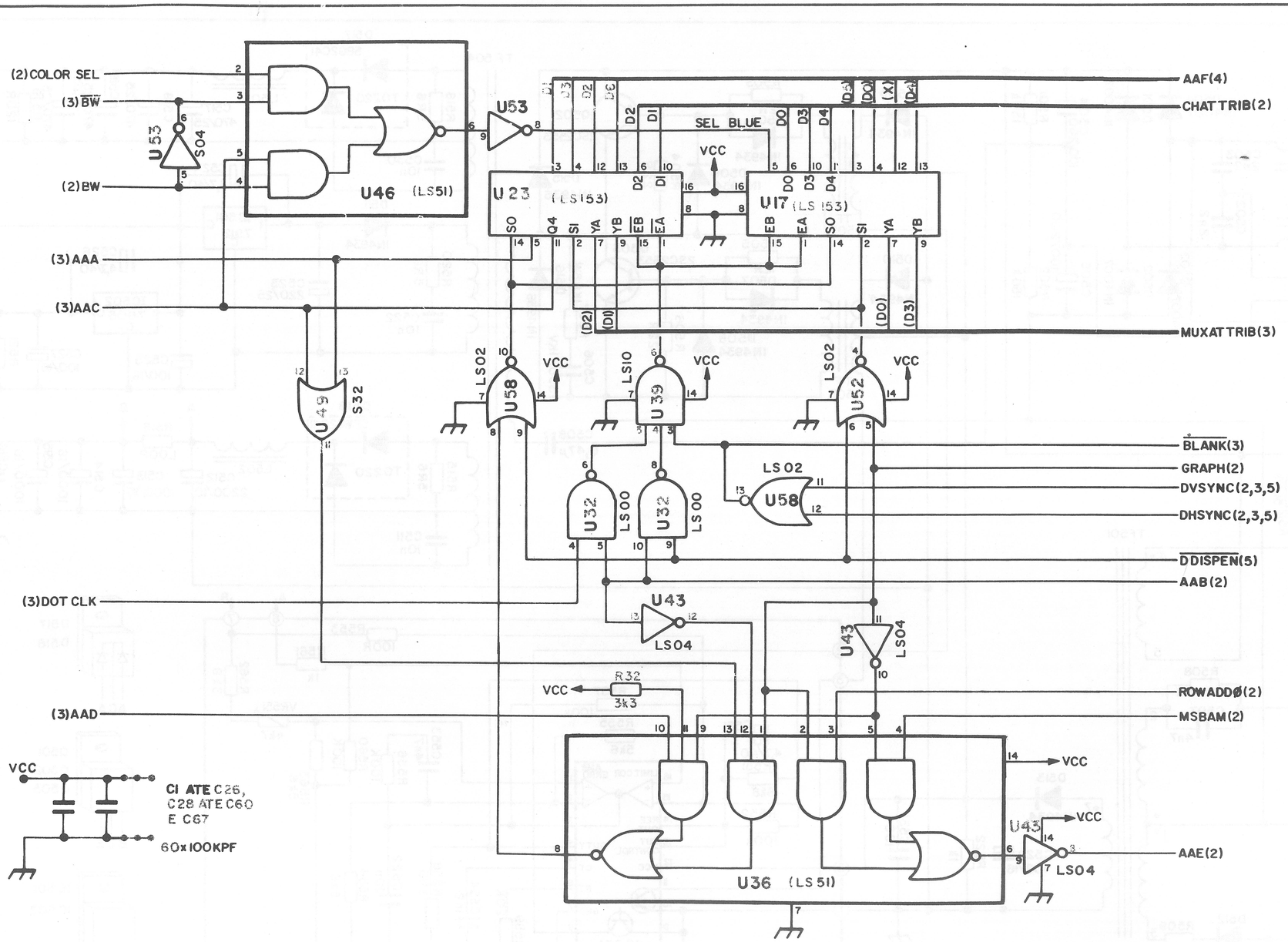
D518 SCHOTTYKY — I_D = 5A; V_R = 30V; t_{rr} = 200 n.s.; V_F = 0,68V

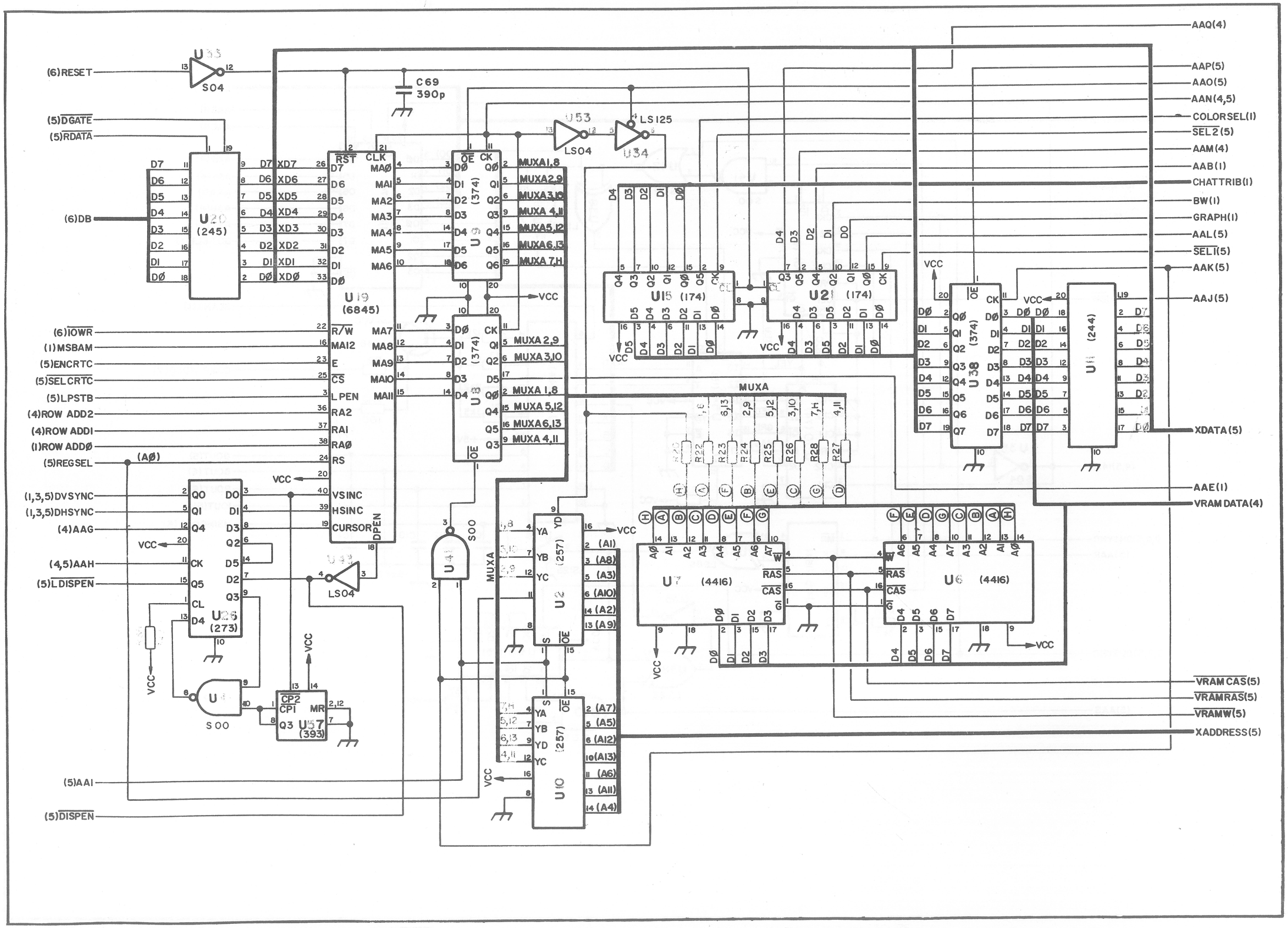
Q501 — I_C = 3A; V_{CE} = 800V; CHAVEAMENTO

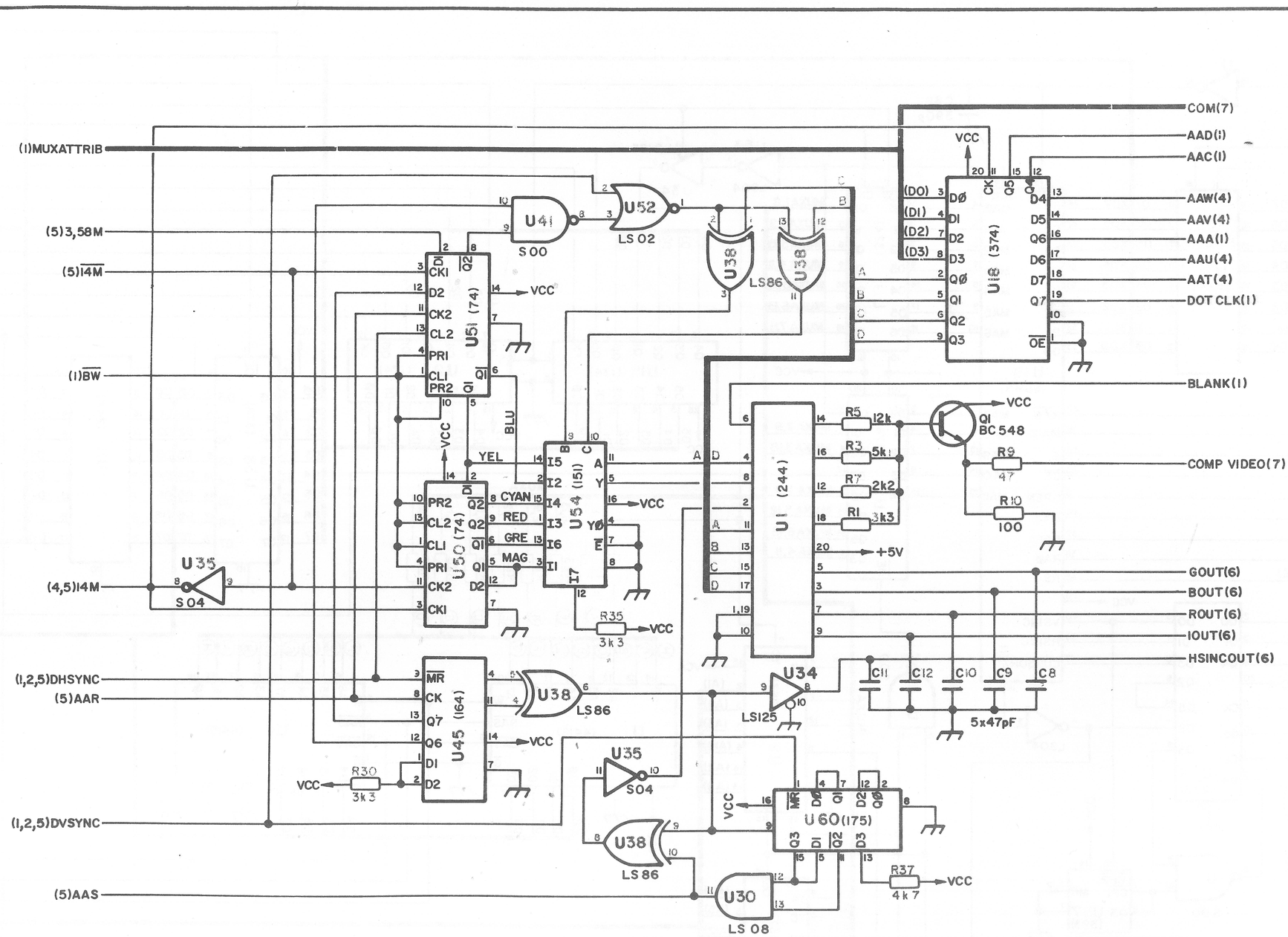
IN4934 — I_D = 1A; V_R = 200V; t_{rr} = 200 n.s.

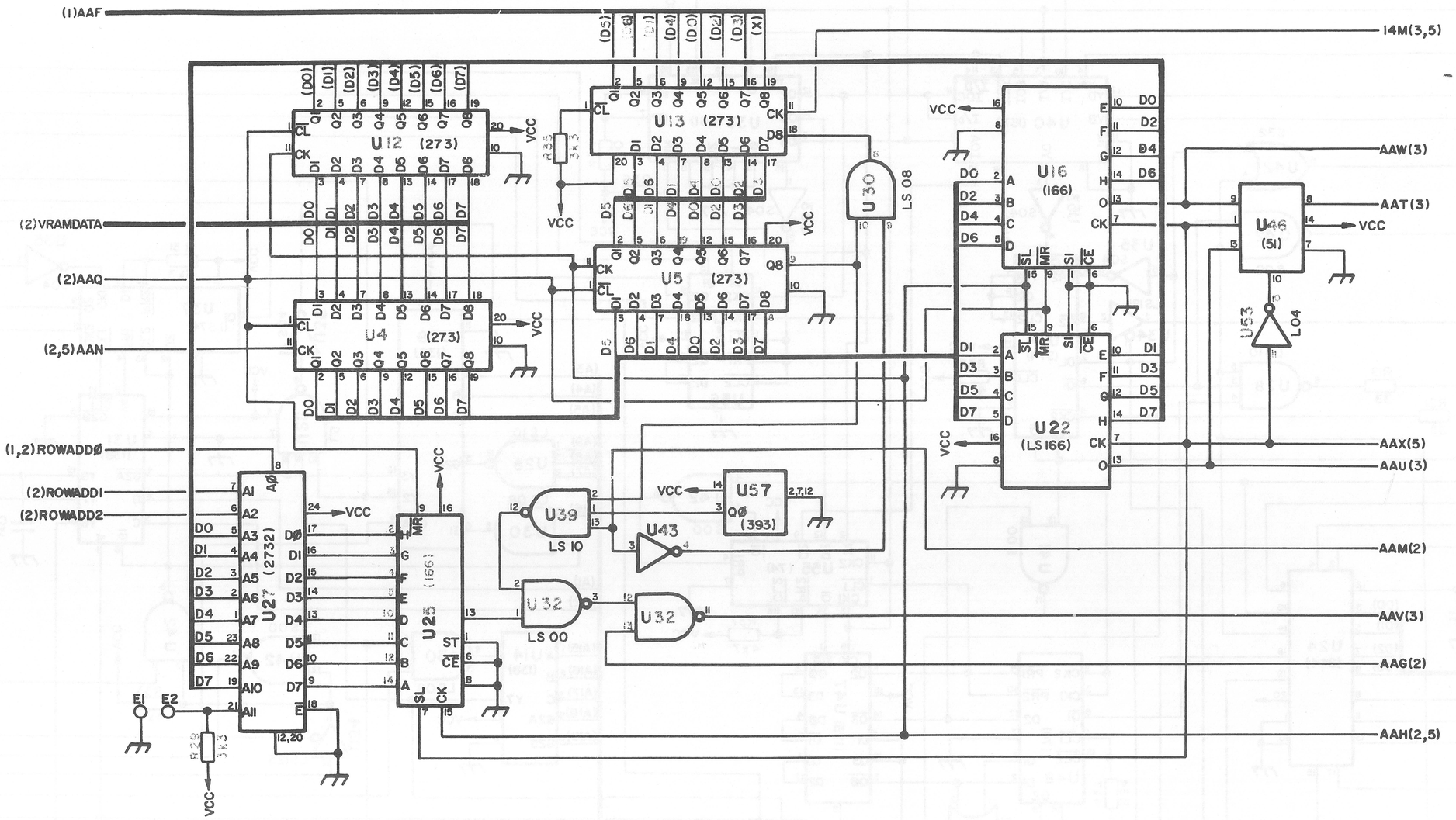
IN4936 — I_D = 1A; V_R = 400V; t_{rr} = 200 n.s.

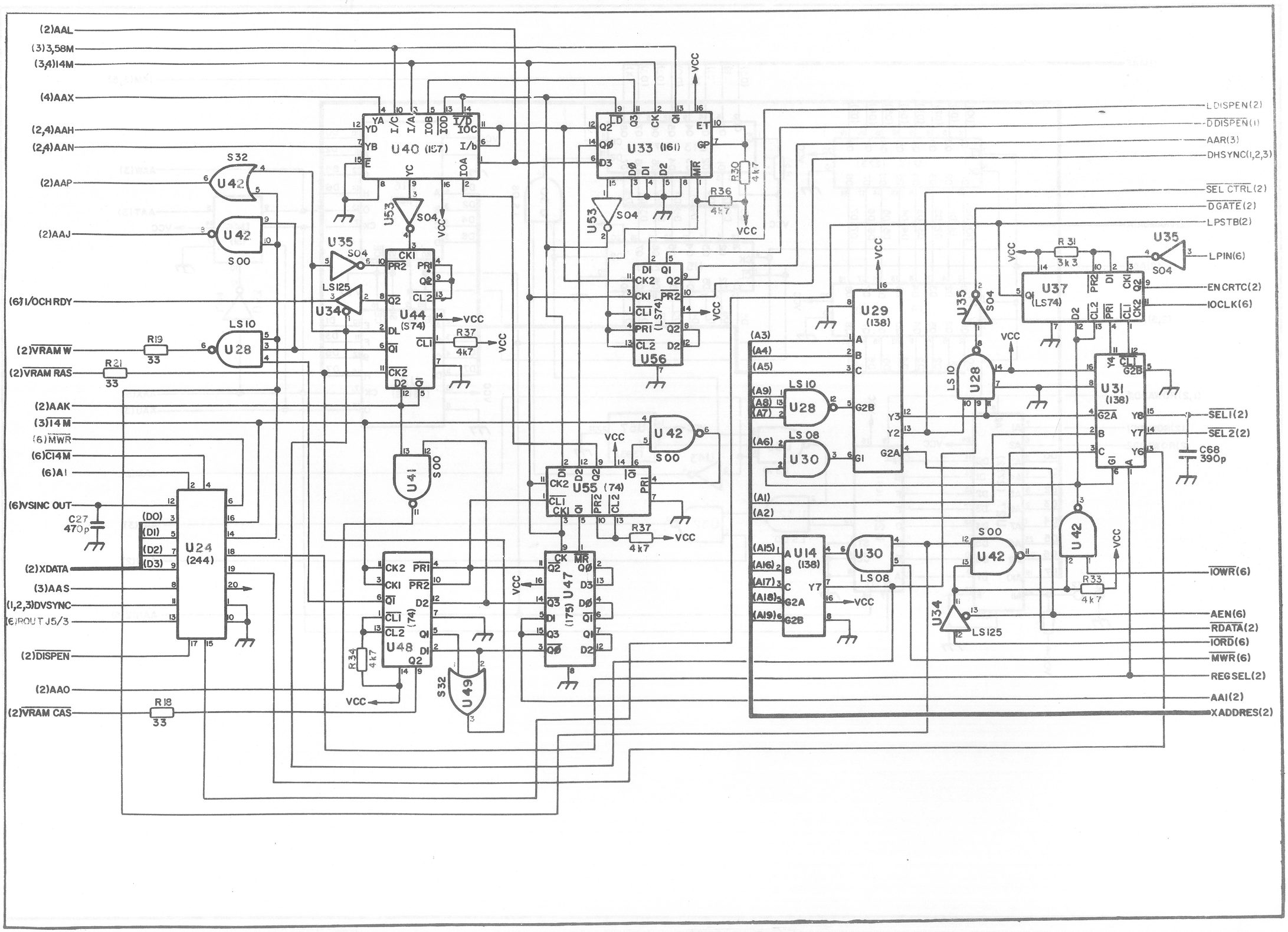
Q502 Q503 — I_C = 5A; V_{CE} = 500V; CHAVEAMENTO

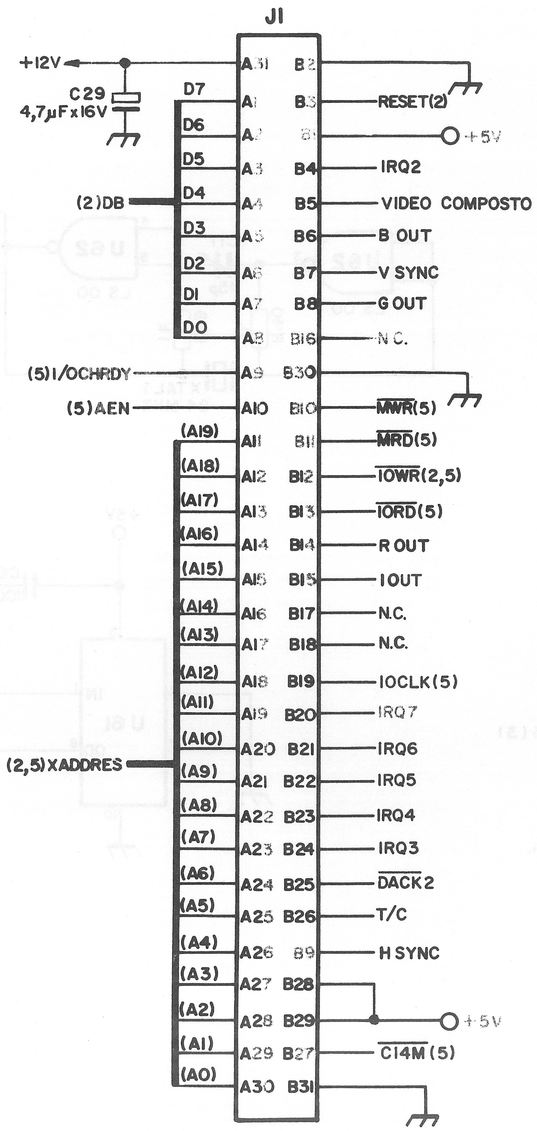

(2)COLOR SEL
(3)BW
(2)BW
U53
S04
U46 (LS51)
U53
SEL BLUE
VCC
U23 (LS153)
U17 (LS153)
AAF(4)
CHATTRIB(2)
MUXATTRIB(3)
(3)AAA
(3)AAC
U49
S32
U58
LS02
U39
LS10
U52
LS02
BLANK(3)
GRAPH(2)
DVSYNC(2,3,5)
DHSYNC(2,3,5)
LS02
U58
U32
LS00
U32
LS00
DDISPEN(5)
AAB(2)
(3)DOT CLK
U43
LS04
U43
LS04
R32
3k3
ROWADDØ(2)
MSBAM(2)
(3)AAD
U36 (LS51)
U43
LS04
AAE(2)
VCC
CI ATE C26,
C28 ATE C60
E C67
60x100KPF

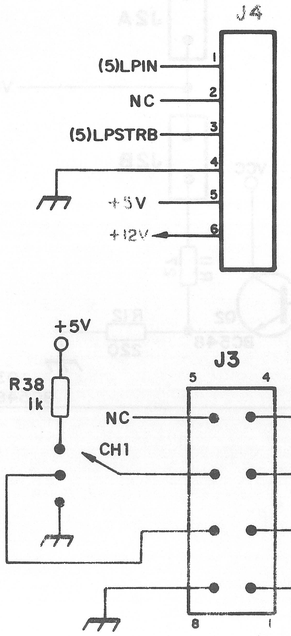

(6)RESET
S04
C69
390p
(5)DGATE
(5)RDATA
(6)DB
U20
(245)
U19
(6845)
(6)IOWR
(1)MSBAM
(5)ENCRTC
(5)SELCRTC
(5)LPSTB
(4)ROW ADD2
(4)ROW ADD1
(1)ROW ADD0
(5)REGSEL
(A0)
VCC
(1,3,5)DVSYNC
(1,3,5)DHSYNC
(4)AAG
(4,5)AAH
(5)LDISPEN
U36
(273)
U57
(393)
S00
LS04
U53
LS125
U34
U9
(374)
U8
(374)
MUXA1,8
MUXA2,9
MUXA3,10
MUXA 4,11
MUXA5,12
MUXA6,13
MUXA 7,H
MUXA
U15 (174)
U21 (174)
U38 (374)
U11 (244)
AAQ(4)
AAP(5)
AAO(5)
AAN(4,5)
COLORSEL(1)
SEL2(5)
AAM(4)
AAB(1)
CHATTRIB(1)
BW(1)
GRAPH(1)
AAL(5)
SEL1(5)
AAK(5)
AAJ(5)
XDATA(5)
AAE(1)
VRAM DATA(4)
U10
(257)
U2
(257)
U7 (4416)
U6 (4416)
VRAM CAS(5)
VRAMRAS(5)
VRAMW(5)
XADDRESS(5)
(5)AAI
(5)DISPEN

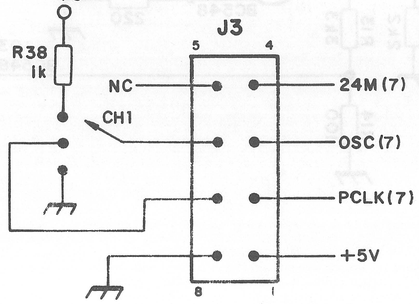

(1)MUXATTRIB
(5)3,58M
(5)14M
(1)BW
(4,5)14M
(1,2,5)DHSYNC
(5)AAR
(1,2,5)DVSYNC
(5)AAS
U41
S00
U52
LS02
U38
LS86
U38
U51 (74)
U50 (74)
U54 (151)
U45 (164)
U35
S04
U38
LS86
U35
S04
U38
LS86
U30
LS 08
U34
LS125
U1 (244)
U16 (374)
U60 (175)
VCC
BLU
YEL
CYAN
RED
GRE
MAG
R35
3k3
R30
3k3
R5 12k
R3 5k1
R7 2k2
R1 3k3
+5V
Q1
BC 548
R9
47
R10
100
R37
4k7
C11
C12
C10
C9
C8
5x47pF
COM(7)
AAD(1)
AAC(1)
AAW(4)
AAV(4)
AAA(1)
AAU(4)
AAT(4)
DOT CLK(1)
BLANK(1)
COMP VIDEO(7)
GOUT(6)
BOUT(6)
ROUT(6)
IOUT(6)
HSINCOUT(6)

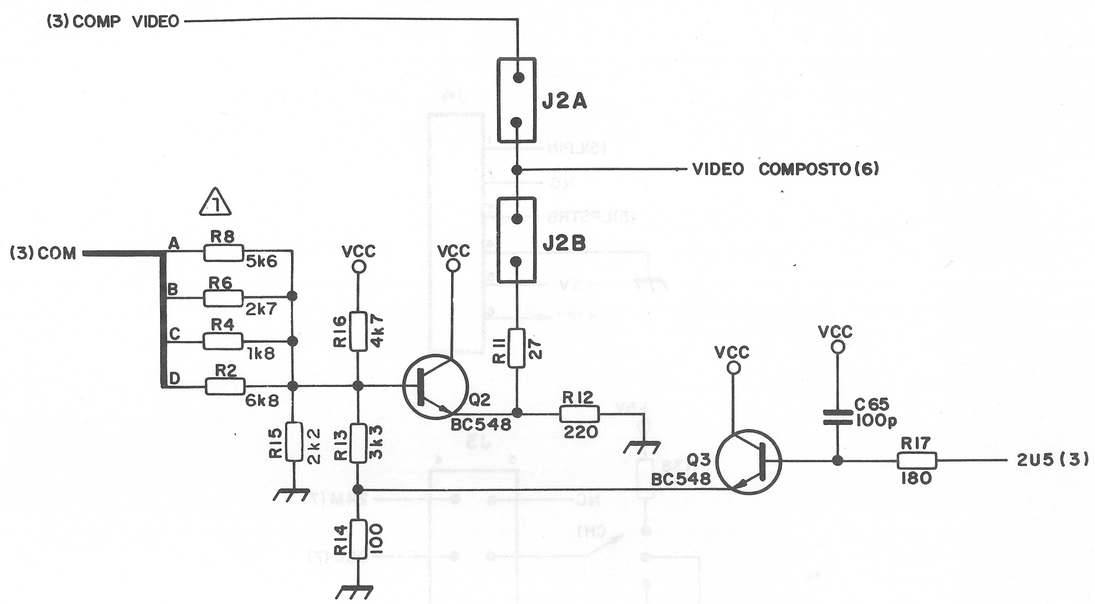

(1)AAF
14M(3,5)
(2)VRAMDATA
(2)AAQ
(2,5)AAN
(1,2)ROWADDØ
(2)ROWADD1
(2)ROWADD2
U12 (273)
U13 (273)
U5 (273)
U4 (273)
U27 (2732)
U25 (166)
U16 (166)
U22 (LS166)
U46 (51)
U53 LO4
U30 LS 08
U39 LS 10
U32 LS 00
U43
U57 (393)
R35 3K3
R36 3K3
VCC
AAW(3)
AAT(3)
AAX(5)
AAU(3)
AAM(2)
AAV(3)
AAG(2)
AAH(2,5)

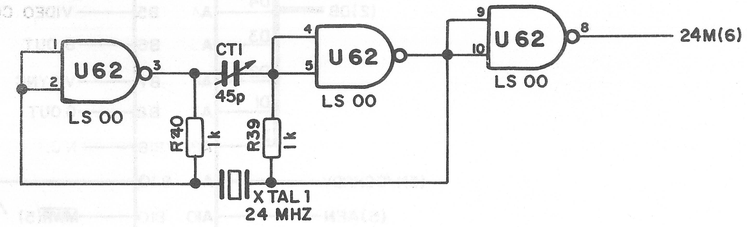

(2)AAL
(3)3,58M
(3,4)14M
(4)AAX
(2,4)AAH
(2,4)AAN
(2)AAP
(2)AAJ
(6)I/OCHRDY
(2)VRAM W
(2)VRAM RAS
(2)AAK
(3)14 M
(6)MWR
(6)C14M
(6)A1
(6)VSINC OUT
(2)XDATA
(3)AAS
(1,2,3)DVSYNC
(6)ROUT J5/3
(2)DISPEN
(2)AAO
(2)VRAM CAS
U40 (157)
U33 (161)
U44 (S74)
U56
U55 (74)
U47 (175)
U48 (74)
U24 (244)
U29 (138)
U31 (138)
U37 (LS74)
U14 (138)
U30
U28
U42
U41
U49
U53
U34
U35
S04
S00
S32
LS10
LS08
LS125
R19 33
R21 33
R18 33
R30 4k7
R36 4k7
R37 4k7
R34 4k7
R31 3k3
R33 4k7
C27 470p
C68 390p
VCC
LDISPEN(2)
DDISPEN(1)
AAR(3)
DHSYNC(1,2,3)
SEL CTRL(2)
DGATE(2)
LPSTB(2)
LPIN(6)
ENCRTC(2)
IOCLK(6)
SELI(2)
SEL2(2)
IOWR(6)
AEN(6)
RDATA(2)
IORD(6)
MWR(6)
REGSEL(2)
AAI(2)
XADDRES(2)

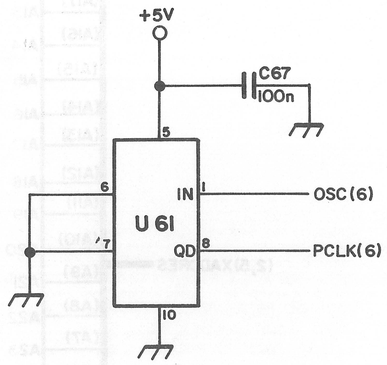

J1
+12V
C29
4,7µF x 16V
D7
D6
D5
D4
D3
D2
D1
D0
(2)DB
(5)I/OCHRDY
(5)AEN
(A19)
(A18)
(A17)
(A16)
(A15)
(A14)
(A13)
(A12)
(A11)
(A10)
(A9)
(A8)
(A7)
(A6)
(A5)
(A4)
(A3)
(A2)
(A1)
(A0)
(2,5)XADDRES
A1 B2
A1 B3
A2 B4
A3 B5
A4 B6
A5 B7
A6 B8
A7 B16
A8 B30
A9 B10
A10 B11
A11 B12
A12 B13
A13 B14
A14 B15
A15 B17
A16 B18
A17 B19
A18 B20
A19 B21
A20 B22
A21 B23
A22 B24
A23 B25
A24 B26
A25 B9
A26 B28
A27 B29
A28 B27
A29 B31
A30
RESET(2)
+5V
IRQ2
VIDEO COMPOSTO
B OUT
V SYNC
G OUT
N.C.
MWR(5)
MRD(5)
IOWR(2,5)
IORD(5)
R OUT
I OUT
N.C.
N.C.
IOCLK(5)
IRQ7
IRQ6
IRQ5
IRQ4
IRQ3
DACK2
T/C
H SYNC
+5V
C14M(5)

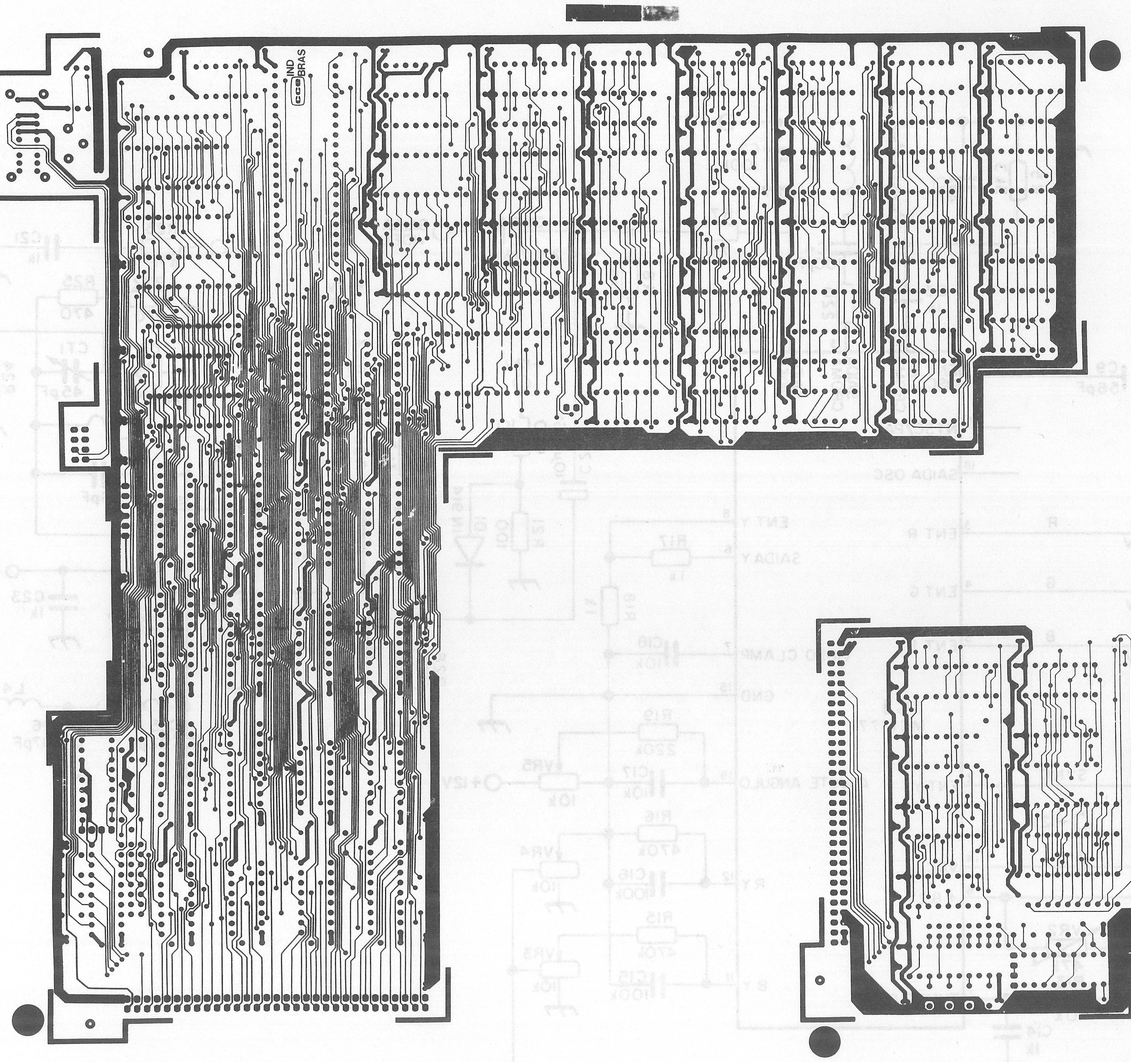

J4
(5)LPIN
NC
(5)LPSTRB
+5V
+12V
1
2
3
4
5
6

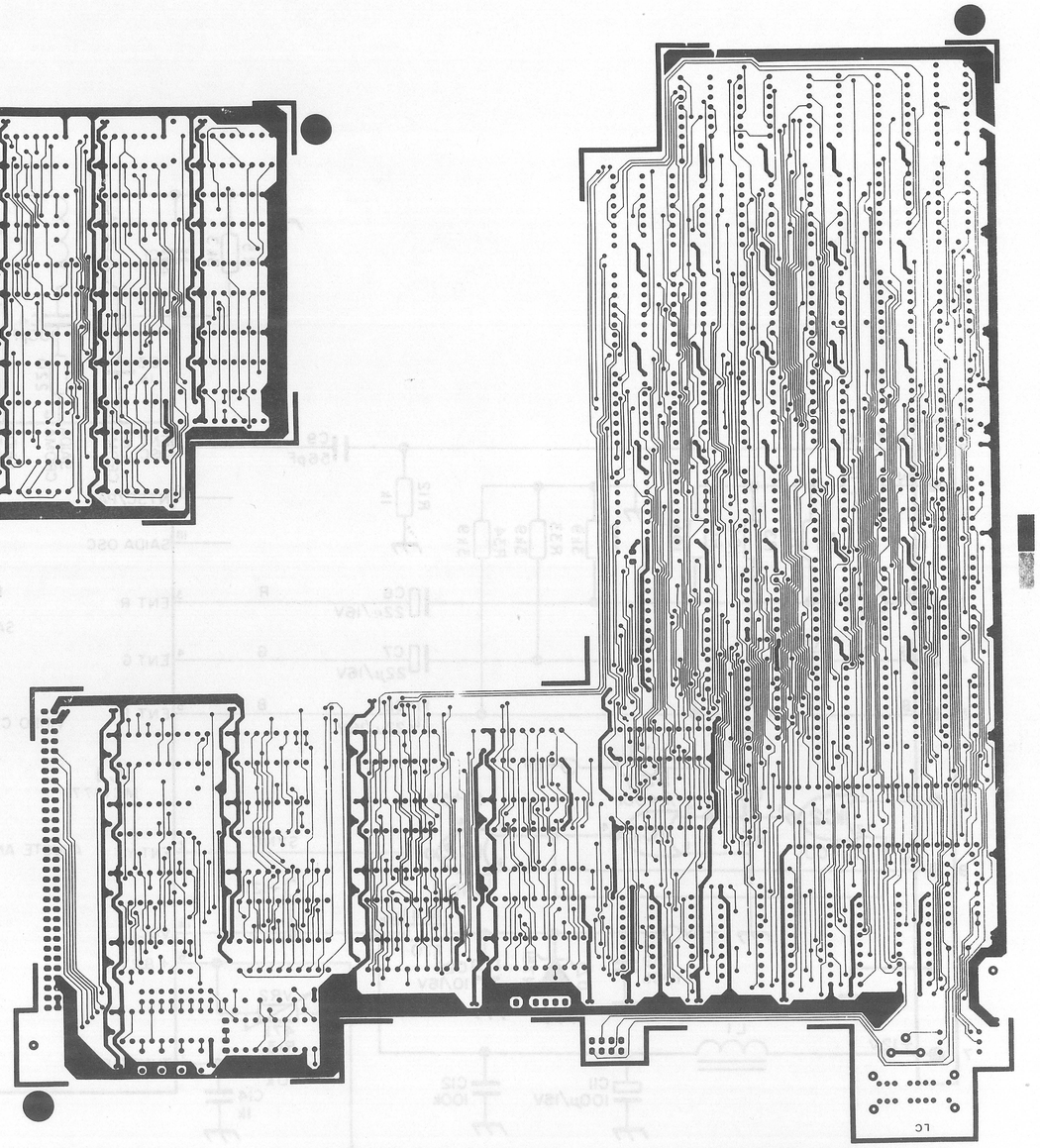

+5V
R38
1k
J3
5
4
NC
CH1
24M(7)
OSC(7)
PCLK(7)
+5V
8
1

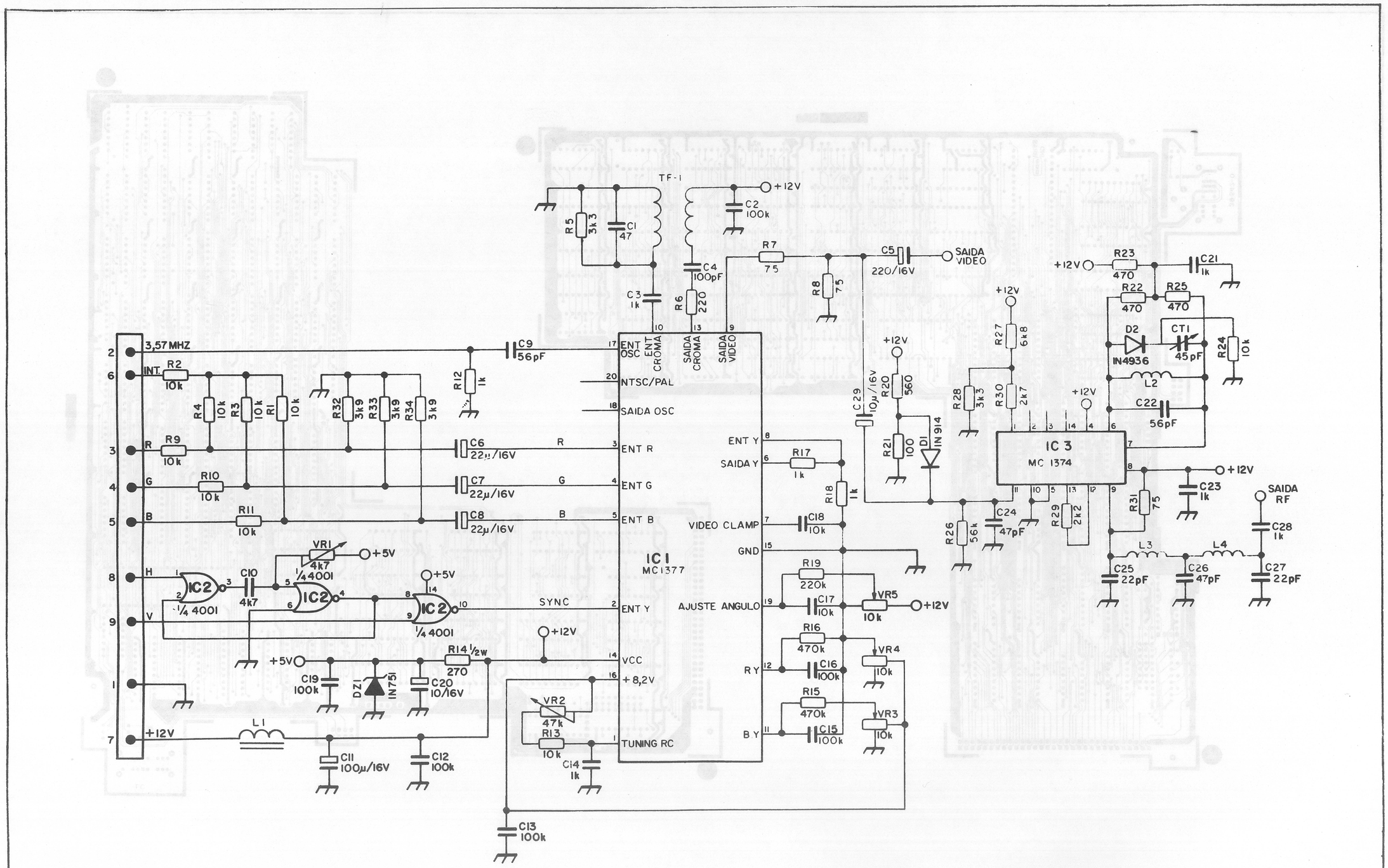

(3) COMP VIDEO
J2A
VIDEO COMPOSTO (6)
J2B
1
(3) COM
A
B
C
D
R8
5k6
R6
2k7
R4
1k8
R2
6k8
VCC
VCC
R16
4k7
R11
27
Q2
BC548
R12
220
R15
2k2
R13
3k3
R14
100
VCC
VCC
C65
100p
Q3
BC548
R17
180
2U5 (3)


U62
LS 00
CTI
45p
U62
LS 00
U62
LS 00
24M(6)
R40
1k
R39
1k
XTAL 1
24 MHZ


+5V
C67
100n
U 61
IN
OSC (6)
QD
PCLK (6)


39542-0
IND
BRAS


FC


TF-1
+12V
C2 100k
R5 3k3
C1 47
R7 75
C5 220/16V
SAIDA VIDEO
C4 100pF
C3 1k
R6 220
R8 75
3,57 MHZ
INT.
R2 10k
R4 10k
R3 10k
R1 10k
R32 3k9
R33 3k9
R34 3k9
R12 1k
C9 56pF
R
R9 10k
C6 22µ/16V
G
R10 10k
C7 22µ/16V
B
R11 10k
C8 22µ/16V
H
V
VR1 4k7
1/4 4001
C10 4k7
SYNC
+5V
R14 1/2w 270
C19 100k
DZ1 IN751
C20 10/16V
+12V
L1
C11 100µ/16V
C12 100k
C13 100k
VR2 47k
R13 10k
C14 1k
IC1
MC1377
ENT OSC
ENT CROMA
SAIDA CROMA
SAIDA VIDEO
NTSC/PAL
SAIDA OSC
ENT R
ENT G
ENT B
ENT Y
VCC
+8,2V
TUNING RC
SAIDA Y
VIDEO CLAMP
GND
AJUSTE ANGULO
RY
BY
R17 1k
R18 1k
C18 10k
R19 220k
C17 10k
VR5 10k
R16 470k
C16 100k
VR4 10k
R15 470k
C15 100k
VR3 10k
C29 10µ/16V
R20 560
R21 100
D1 IN914
R28 3k3
R27 6k8
R30 2k7
R26 56k
C24 47pF
IC 3
MC 1374
R23 470
C21 1k
R22 470
R25 470
D2 IN4936
CT1 45pF
R24 10k
L2
C22 56pF
R29 2k2
R31 75
C23 1k
L3
L4
C25 22pF
C26 47pF
C27 22pF
C28 1k
SAIDA RF

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Este é o famoso manual, que todo mundo dizia não existir, contendo os esquemas da CCE

Este manual foi vendido em lojas por muito tempo, feito pela ELTEC (que não existe mais). Mas não sei porque motivo, ninguém viu, comprou ou tem. Por sorte, achei DOIS pra comprar em uma loja do rio de janeiro. Comprei imediatamente para poder scanear e disponibilizar para vocês. Eu tinha esse manual a (pasmem) DECADAS. Eu dei a minha copia para um amigo, ai quando vi que era difícil pra caramba de consegui-lo, não consegui recupera-lo para scanear. Agora, aqui está, de graça, pra todos vocês. Um presente do Tabajara Labs.

Este manual originalmente em paginas A3, foi scaneado manualmente em uma Xerox Workcentre de grande porte em 600 x 600 DPI. Cada PAGINA scaneada tem em torno de 68 megabytes. Pensei em disponibilizar duas versões do manual, mas estamos na era da banda larga. Mesmo tendo quase 230 megabytes, são 123 paginas A3 em alta resolução, vale a pena guardar. Ate porque eu duvido que você algum dia vá encontrar esse manual pra comprar.

Agradeço ao meu amigo LUIS VIOLA que disponibilizou o Scanner e ajudou no processo de scan. Sem ele, dificilmente este manual teria saído tão perfeito. Talvez, nem tivesse sido scaneado, dado a quantidade de trabalho para faze-lo em um scanner de mesa. O uso do workcentre economizou DIAS de scan e retoque no photoshop.

Este manual é gratuito E DEVE SEMPRE SER. Se você comprou esse manual, peça seu dinheiro de volta. Perdi dias fazendo este manual com todo o carinho para que a informação possa estar ao alcance de todos. Eu sei o quanto é difícil procurar um esquema e não obter.

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